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VIII.—CONTRIBUTIONS TO THE FLORA

OF SIAM.*

ADDITAMENTUM XIV.

W. G. CRAIB.

Monocarpia siamensis Craib [Anonaceae-Unoneae] ; a *M. euneura* Miq., partibus novellis et petalis pilis parvis stellatis instructis, foliorum nervis multo minus prominentibus, pedicellis longioribus, fructu breviter sed distincte stipitato recedit.

Caules lignosi, volubiles (ex *Kerr*), primo pilis parvis brunneis stellatis parce instructi, cito glabri, fusco-brunnei, brunnei, vel rarius cinereo-brunnei, cortice reticulato-striato hic et illic transverse rupto obtecti, lenticellis subconspicuis. *Folia* oblongo-ob lanceolata vel oblonga, apice breviter obtuse acuminata, basi rotundato-acuminata vel cuneata, ad 13 cm. longa et 4·8 cm. lata, rigide chartacea, sicco brunnescentia, matura glabra vel subtus pilis stellatis parvis hic et illic ad nervos instructa, costa supra impressa subtus prominente, nervis lateralibus utrinque 9–14 intra marginem anastomosantibus supra conspicuis subtus prominulis, nervulis rete gracile subtus subprominulum efficientibus, petiolo 5–7 mm. longo supra canaliculato pilis stellatis parvis parce instructo suffulta. *Flores* solitarii, oppositifolii, pedicellis 2–3·5 cm. longis basi bracteis deciduis instructis pilis parvis ferrugineis stellatis instructis suffulti. *Sepala* oblata, apice leviter obtuse acuminata, 5 mm. longa, 5·5 mm. lata, coriacea, cum petalis extra pilis parvis stellatis brunneis instructa, intra basi excepta puberula et parum granulosa, ciliata. *Petala* exteriora 2·4 cm. longa, 8·5 mm. lata, interiora exterioribus subaequilonga, circa 6 mm. lata. *Stamina* 2·25 mm. longa, filamentis vix 0·5 mm. longis inclusis, connectivo apice truncato. *Receptaculum* conicum, 1·25 mm. altum, glabrum. *Ovarium* e carpello unico plurisulcato 1·75 mm. alto densius albo-stellato-pubescente constitutum ; stigma subsessile, 3 mm. diametro ;

* Continued from *K.B.* 1922, p. 225.

ovula circa 8. *Carpellum* maturum stipite brevi incluso circa 1·8 cm. longum et 1 cm. diametro, verruculosum, ferrugineo-furfuraceum.

Kampêng Pêt, Mè Lamung, c. 600 m., on limestone rocks, Kerr 6087.

***Polyalthia rufa* Craib** [Anonaceae-Unoneae]; a *P. obliqua* Hook. f. et Th., ramulis dense subferrugineo-pubescentibus, pilis haud adpressis, foliis brevioribus, calyce extra dense ferrugineo-subhirsuto, petalis dorso pilis ferrugineis adpressis sparse vel subsparse instructis haud sericeis inter alia recedit.

Frutex circa 1·5 m. altus (ex Kerr); ramuli graciles, primo dense subferrugineo-pubescentes, demum glabri, cortice fusco rarius cinereo obtecti, lenticellis inconspicuis. *Folia* oblongo-lanceolata, oblongo-ob lanceolata, rarius oblongo-ovata vel lanceolata, apice obtusa vel acutiuscula, basi inaequilaterialia, cordatula, 4–9 cm. longa, 1–3·6 cm. lata, chartacea, supra glabra, rarissime ad costam pilis sparsis instructa, subtus pallidiora, pilis ferrugineis subparce instructa, nervis lateralibus utrinque 8–10 bene intra marginem anastomosantibus supra obscuris vel subobscuris subtus prominulis, nervulis subtus parum prominulis, margine recurva, petiolo circa 3 mm. longo indumento ei ramulorum simili tecto suffulta. *Flores* solitarii, supra-axillares, e ramulis foliatis vel defoliatis orti, pedicellis ad 2 mm. longis dense ferrugineo-subhirsutis suffulti. *Sepala* ovata, obtusa, basi parum connata, 4 mm. longa, 2·75 mm. lata, extra dense ferrugineo-subhirsuta, intra glabra. *Petala* 6, inter se subaequilongia, obtusa, 7 mm. longa, exteriora oblongo-lanceolata, circa 3·5 mm. lata, interiora lanceolata, circa 3 mm. lata, omnia dorso parce adpresse ferrugineo-pubescentia, intra glabra vel apice pilis paucis ferrugineis instructa. *Stamina* 1·25 mm. alta, filamentis brevibus, connectivo producto truncato concavo. *Carpella* circa 10, longius adpresse pubescentia, 1·25 mm. alta, stylo brevi, stigmate 0·75 mm. lato pilis paucis divergentibus sat rigidis instructo, ovalis 2 basalibus.

Nakawn Sawawn, Mè Wong, c. 100 m., evergreen forest, Kerr 6022.

***Saccopetalum lineatum* Craib** [Anonaceae-Miliuseae]; ab affini *S. longifloro* Hook f. et Th., floribus minoribus, stylo breviori crassiore recedit.

Arbor 15–20 m. alta (ex Kerr); ramuli novelli dense fulvo-pubescentes vel tomentoso-pubescentes, demum glabrescentes, cortice brunneo, rubro-brunneo vel cinereo-brunneo reticulato-striato tecti, pauci-lenticellati. *Folia* (maturis deficientibus) juvenilia oblonga, oblongo-lanceolata, vel oblongo-ob lanceolata, apice acute vel subacute acuminata vel subacuminata, basi parum inaequilaterialia, truncata, rotundata, vel cordatula, ad 6·5 cm., longa et 2·7 cm. lata rigide chartacea, supra ad costam densius breviter pubescentia, aliter glabrescentia, primo parce pubescentia, subtus primo dense pubescentia vel tomentoso-pubescentia, cito ad costam nervosque laterales pubescentia, aliter parce pubescentia, nervis lateralibus utrinque circa

12 intra marginem anastomosantibus supra conspicuis vel subconspicuis subtus prominulis, reticulatione subtus subconspicua, margine integra, petiolo circa 2 mm. longo indumento ei ramulorum simili tecto suffulta. *Flores* virides, petalis interioribus intra rubro-lineatis (ex *Kerr*), ex axillis foliorum delapsorum orti, solitarii vel gemini, pedunculo communi brevi vel perbrevis, pedicellis circa 5 mm. longis fulvo-tomentosis. *Sepala* oblongo-lanceolata, obtusa, 4.5 mm. longa, 2 mm. lata, utrinque breviter pubescentia, ciliata. *Petala* exteriora sepalis similia sed paulo longiora et angustiora, interiora 2-2.5 cm. longa, 7.5 mm. lata, basi saccata, utrinque pubescentia sed intra medio glabra vel puberula. *Stamina* circa 4-seriata, filamentis brevibus inclusis 1 mm. longa, connectivo paululo producto loculos haud obtegente. *Receptaculum* hirsutum. *Ovarium* e carpellis circa 14 constitutum; carpella 1.25 mm. alta, pubescentia, stigmatibus circa 0.8 mm. longo, stylo brevi, ovulis 7.

Nakawn Sawawn, Mê Wong, c. 100 m., evergreen forest, *Kerr* 6012.

Vern. I rêt (ex *Kerr*).

Alsodeia (Prosthesis) immersa *Craib* [Violaceae-Also-deieae]; species foliis nisi pagina inferiore in nervorum axillis glabris, inflorescentia axillari petiolo subaequilonga, capsula glabra parum verrucosa distincta.

Frutex circa 1.5 m. altus (ex *Kerr*); ramuli primo plus minusve puberuli, mox glabrescentes, luteo-viridi-corticati, lenticellis vix conspicuis. *Folia* lanceolata, oblongo-lanceolata, vel oblongo-oblancheolata, apice obtuse acuminata, basi cuneata, usque ad 14 cm. longa et 5 cm. lata, chartaceo-coriacea, supra glabra, subtus in nervorum axillis pilosa, aliter glabra, nervis lateralibus utrinque circa 10 pagina utraque prominulis, nervulis gracilibus pagina utraque subprominulis, margine leviter serrulata, petiolo ad 1 cm. longo supra canaliculato puberulo suffulta; stipulae deciduae, circa 6 mm. longae, lineari-lanceolatae, acute acuminatae, ciliatae, costatae. *Inflorescentiae* axillares, petiolis subaequilongae, pedicellis circa 4 mm. longis, bracteis parvis deciduis. *Sepala* ovata, acute acuminata, dorso apice carinata, 2.5 mm. longa, 2 mm. lata, extra adpresse pubescentia, ciliata. *Petala* alba (ex *Kerr*), oblonga, apice rotundata obtusave, parum recurva, 3.5 mm. longa, 1.75 mm. lata, unicostata, costa intra prominente. *Discus* 0.5 mm. altus. *Filamenta* 0.5 mm. longa, loculis vix 1 mm. longis, appendice apicale circa 0.3 mm. longa, appendice membranacea deltoidea 0.75 mm. alta. *Ovarium* glabrum, disco vix aequialtum, stylo 1.75 mm. longo glabro. *Capsula* subglobosa, ad 7 mm. diametro, glabra, parum verrucosa, perianthio persistente, stylo persistente vel deciduo.

Nakawn Sawawn, Mê Wong, evergreen forest, c. 100 m., *Kerr* 6011; Klawng Kūng, evergreen forest, c. 100 m., *Kerr* 6011A.

Corydalis siamensis Craib [Fumariaceae]; species radice cylindrica elongata, foliis ternatis, ramulis floriferis foliatis, bracteis pedicellis subaequilongis, corolla alba apice punicea cognoscenda.

Radix elongata, cylindrica. *Folia* ambitu triangularia vel late triangularia, bi- vel tri- ternata, 1-5 cm. longa, 2-10 cm. lata, membranacea, glabra, subtus pallidiora vel subglauca, petiolo ad 12.5 cm. longo suffulta; segmenta ultima anguste flabelliformia, basi cuneata, 3-lobata, lobis integris vel 3-lobulatis, lobulis rotundatis apiculatis, e basi 3-nervata. *Ramuli* floriferi axillares, ad 11 cm. alti, simplices vel ramosi, paucifoliati. *Bractaeae* trilobatae, pedicellis longiores vel iis subaequilongae; pedicelli 3-4 mm. longi. *Sepala* orbicularia, fimbriata, vix 1.25 mm. diametro. *Corolla* alba, apice punicea (ex Kerr), 19 mm. longa, calcare petalis subaequilongo, petalo calcarato elliptico 8 mm. longo 5 mm. lato, altero exteriore oblongo-oblancheolato. *Pistillum* 9 mm. altum, glabrum, stylo ovario paulo longiore. *Fructus* stylo persistente incluso 17 mm. longus, valvis tenuibus, suturis persistentibus, seminibus nigris nitidis laevibus.

Doi Chiengdao, in crevices of limestone rocks, c. 1900 m., Kerr 6582.

Garcinia McKeaniana Craib [Guttiferae-Garcinieae]; a *G. paniculata* Roxb. floribus masculis ovarii rudimento evoluta recedit.

Arbor circa 12 m. alta (ex Kerr); ramuli fuscescentes, primo hic et illic parcissime puberuli, cito glabri, cortice striato-reticulato. *Folia* oblongo-elliptica, oblongo-lanceolata, vel oblongo-obovata, apice breviter acuminata, basi cuneata, usque ad 19 cm. longa et 7.5 cm. lata, coriacea, sicco supra fuscescentia, subtus pallidiora, glabra, costa supra conspicua interdum parum impressa subtus prominente, nervis lateralibus sat distantibus utrinque 10-12 supra conspicuis saepe impressis subtus prominentibus intra marginem haud furcatis, nervulis numerosis inter se parallelis pagina utraque conspicuis vel subconspicuis, pellucido-punctata et subtus parce nigro-lineata, margine recurva, petiolo ad 1.5 cm. longo suffulta. *Flores* masculi in paniculas terminales vel ramulos breves axillares bifolios terminantes multifloras circa 8-9 cm. longas et 8-10 cm. latas pedunculo communi circa 2 cm. longo suffultas dispositi; pedunculi partiales infimi 2 cm. longi, supremi 1 cm. longi; pedicelli 2 mm. longi, basi articulati. *Sepala* 4, duo exteriora late ovata, 3.5 mm. longa, 4 mm. lata, interiora oblata, 3.5 mm. longa, 5.5 mm. lata, omnia apice rotundata, glabra. *Petala* 4, ad 7.5 mm. longa et 4.5 mm. lata. *Stamina* ad apicem receptaculi cupuliformis posita, fasciculis 4 subdistinctis e staminibus circa 10 constitutis, antheris longitudinaliter dehiscentibus, connectivo crasso supra loculos producto truncato. *Ovarii* rudimentum liberum, 1.75 mm. altum, staminibus subaequialtum, glabrum, columnare, basi parum tumidum.

Doi Sutep, 1200-1550 m., evergreen jungle, Kerr 3504, 3470.

Garcinia plena Craib [Guttiferae-Garcinieae]; a *G. fusca* Pierre et *G. Schomburgkiana* Pierre floribus masculis ovarii rudimento evoluta recedit.

Arbor circa 15 m. alta (ex *Kerr*); ramuli fusco-corticati, glabri, primo quadrangulares. *Folia* oblanceolata vel obovato-oblanceolata, apice acuminata, basi cuneata, 7·5–12·5 cm. longa, 3–5·5 cm. lata, chartacea vel rigide chartacea, glabra, nervis lateralibus utrinque circa 10 intra marginem anastomosantibus, aliis parum tenuioribus additis, omnibus supra subprominulis subtus conspicuis vel subconspicuis, margine revoluta, petiolo 10–13 mm. longo supra canaliculato suffulta. *Flores* masculi fasciculati, et laterales et terminales, fasciculo quoque e floribus circa 8 constituto; pedicelli ad 8 mm. longi, angulati, basi bracteati; alabastra globosa, floribus apertis deficientibus. *Sepala* 4, obovato-elliptica vel elliptica, 4 mm. longa et lata. *Petala* 4. *Receptaculum* convexum. *Antherae* longitudinaliter dehiscentes. *Ovarii* rudimentum ad apicem receptaculi situm, glabrum, stigmatē pyramidale.

Nan, Ban Tiu, c. 1100 m., evergreen forest, *Kerr* 5007.

Garcinia propinqua Craib [Guttiferae-Garcinieae]; a *G. anomala* Pl. et Tr. foliis minoribus minus coriaceis, floribus masculis numerosioribus multo minoribus pedunculo communi longiore suffultis, sepalis haud coriaceis, ovarii rudimento apice plano recedit.

Arbor circa 8 m. alta (ex *Kerr*); ramuli sicco viridi-lutei, iuventute puberuli, quadrangulares. *Folia* late lanceolata vel oblongo-lanceolata, apice obtuse breviter acuminata, basi cuneata vel rotundato-cuneata, ad 11·5 cm. longa et 4·5 cm. lata, membranaceo-coriacea, glabra, nervis lateralibus utrinque circa 16–18 aliis fere aequalibus interpositis supra plus minusve conspicuis subtus prominulis intra marginem anastomosantibus, nervulis vix conspicuis, margine anguste cartilaginea, recurva, petiolo 3–6 mm. longo supra canaliculato suffulta. *Inflorescentiae* masculae ex axillis foliorum delapsorum ortae, pedunculo communi 7–13 mm. longo puberulo suffultae, e floribus circa 9 constitutae, pedicellis circa 6 mm. longis basi bracteatis umbellatim dispositis. *Sepala* 4, membranacea, sub anthesin reflexa, 3·5 mm. longa, exteriora interioribus latiora. *Petala* 4, oblongo-cuneiformia, 5·5 mm. longa, 3·5 mm. lata. *Receptaculum* cupuliforme, stamina extra et apice gerens. *Filamenta* brevia, antheris oblongis longitudinaliter dehiscentibus 2-locularibus recurvis. *Pistillodium* stamina paululo superans, apice latum, parum convexum.

Doi Chiengdao, c. 1500 m., dense evergreen forest, *Kerr* 5611.

Calophyllum Smilesianum Craib [Guttiferae-Calophylleae]; a *C. polyantho* Wall., partibus omnibus haud glabris, a *C. Thorelii* Pierre, floribus minoribus, stylo multo breviorē recedit.

Arbor circa 25 m. alta (ex *Kerr*); ramuli iuventute griseo-puberuli vel fere glabri, quadrangulares, rubro-brunneo-corticati, mox omnino glabri, teretes, cortice plus minusve fuscescente,

lenticellis vix conspicuis angustis longitudinaliter extensis; ramulorum alabastra et terminalia et axillaria elongata, dense griseo-puberula. *Folia* oblongo-elliptica, elliptico-ovata, vel rarius lanceolata, apice subacuminata, obtusa vel subacute indurato-apiculata, basi acuminata, 5.5–9.5 cm. longa, 2.5–4.3 cm. lata, coriacea, subtus pallidiora, matura glabra, costa subtus prominente, nervis numerosis pagina utraque prominulis sed superiore paululo magis elevatis, margine anguste cartilaginea, paulo recurva, petiolo 1–2 cm. longo apice pagina decurrente alato supra late canaliculato maturo glabro suffulta. *Flores* albi (ex *Kerr*), in racemos axillares et in paniculas terminales foliis paulo breviores dispositi; pedunculi communes breves vel subnulli, cum rhachide pedunculis partialibus et pedicellis densius ferrugineo-puberuli vel fere furfuracei; pedicelli 4–7 mm. longi. *Sepala* 4, exteriora inter se inaequalia, quoad formam variabilia, oblongo-ovata, late elliptica, vel rarius obovata, usque ad 2.5 mm. longa et 2.75 mm. lata, interiora obovata vel elliptico-obovata, circa 4.5 mm. longa, omnia apice rotundata, ciliata, exteriora dorso puberula, interiora dorso ima basi puberula vel fere glabra. *Petala* obovata, apice rotundata, circa 5.5 mm. longa et 4 mm. lata, ciliata. *Filamenta* 3.5 mm. longa, basi distincte plus minusve connata, antheris oblongis apiculatis 1 mm. longis. *Ovarium* glabrum, 1.75 mm. altum, stylo saepissime delapso ovario subaequilongum.

Dan Sui, Kao Keo Kang, c. 1300 m., evergreen forest, *Kerr* 5792.

var. lutea *Craib*, a typo foliis magis oblongis, ramulis iuventute luteis indumento simili sed copiosiore tectis, inflorescentia longiore recedit. *Fructus* ambitu oblongo-ellipticus vel ellipticus, apiculatus 2.7–3.5 cm. longus, 1.9–2.5 cm. latus.

Doi Pahom Pok, c. 1600 m., evergreen forest, *Kerr* 5180.

Calophyllum Williamsianum *Craib* [Guttiferae-Calophylleae]; a *C. Thorelii* Pierre, floribus minoribus, a *C. polyantho* Wall., foliis multo maioribus recedit.

Arbor circa 15–20 m. alta (ex *Kerr*); ramuli quadrangulares, novelli sicco fusci, dein lutescentes, primo puberuli, cito glabri. *Folia* oblonga vel oblongo-lanceolata, apice obtuse acuminata, basi subacuminata vel acuminato-cuneata, 9–19 cm. longa, 4.5–6.5 cm. lata, coriacea, iuvenilia pagina utraque ad costam parce puberula, aliter glabra, matura omnino glabra, costa subtus prominente, nervis lateralibus numerosis pagina utraque prominulis sed inferiore paululo magis elevatis, margine anguste cartilaginea, petiolo 12–17 mm. longo transverse corrugato supra conspicue canaliculato primo lateraliter puberulo mox glabro suffulta. *Flores* albi (ex *Kerr*), in racemos axillares et paniculas terminales foliis subaequilongas dispositi; pedunculus communis subnullus vel ad 5 cm. longus, cum rhachide pedunculis partialibus et pedicellis densius ferrugineo-puberulus; pedicelli 6–12 mm. longi. *Sepala* exteriora plus minusve rotundata, ad 2.5 mm. longa et 3 mm. lata, ciliata, dorso ferrugineo-puberula, interiora 7 mm. longa, subglabra vel extra distincte

puberula, ciliata. *Petala* 9 mm. longa, ciliata. *Filamenta* circa 3.5 mm. longa, basi connata; antherae oblongae, 1.75 mm. longae, apiculatae. *Ovarium* glabrum, 1.75 mm. altum; stylus fere 4 mm. longus, superne gradatim incrassatus, stigmatibus peltatis.

Nan, Doi Tiu, c. 1100 m., evergreen forest, *Kerr* 5038.

Gordonia Dalglishiana *Craib* [Ternstroemiaceae-Gordonieae]; foliis coriaceis apicem versus denticulatis breviter petiolatis, floribus maioribus distinctis.

Arbor 8–10 m. alta (ex *Kerr*); ramuli primo adpresses pubescentes, mox glabri, cortice brunneo, cinereo-brunneo vel cinereo obtecti, lenticellis inconspicuis. *Folia* oblongo-lanceolata, oblongo-oblancheolata, vel oblanceolata, apice obtusa, haud rarius retusa, saepe subacuminata, rarissime longius acuminata, basi cuneata, 6–14 cm. longa, 2.5–4.5 cm. lata, coriacea, sicco supra viridia vel viridi-lutescentia, subtus pallide viridia, supra glabra vel ad costam interdum pubescentia, subtus iuventute medium versus densius sericea, matura glabra vel pilis adpressis inconspicuis hic et illic instructa, nervis lateralibus utrinque circa 10 bene intra marginem anastomosantibus pagina utraque subobscuris vel plus minusve conspicuis interdum inferiore prominulis, subintegra vel saepius apicem versus denticulata, petiolo 4–8 mm. longo supra conspicue canaliculato plus minusve pubescente suffulta. *Flores* albi (ex *Kerr*), axillares, solitarii, ad 6.5 cm. diametro; bracteae deciduae. *Sepala* bracteis similia sed gradatim maiora, coriacea, brunnea, ovato-rotundata vel late ovata, usque ad 1.2 cm. longa et 9 mm. lata, persistentia, cum bracteis dorso basi adpresses pubescentia et apice rotundata. *Petala* obovata vel cuneato-obovata, extra basi sparse breviter adpresses albo-pubescentia. *Stamina* lutea (ex *Kerr*), basi breviter connata et petalis adnata, glabra, 1.5 cm. longa, antheris circa 2 mm. longis. *Ovarium* 3 mm. altum, dense adpresses pubescens, stylo 1.3 cm. longo sulcato superne glabro inferne adpresses pubescente. *Capsula* lignosa, ad 3.5 cm. longa, plus minusve adpresses pubescens, valvis dorso basi rotundatis apice sulcatis. *Semina* brunnea, nitida, circa 1 cm. longa, alis stramineo-brunneis subaequilongis.

Doi Sutep, c. 1600 m., evergreen jungle, *Kerr* 4680 A (type). Doi Pa Kao, c. 1300 m., evergreen forest, *Kerr* 5378. Doi Angkā, Pā Ngēm, c. 2100 m., on open ridge, *Kerr* 6309.

Pyrenaria Garrettiana *Craib* [Ternstroemiaceae-Gordonieae], ab affini *P. camelliflora* Kurz, ramulis primo dense pubescentibus foliis supra haud glabris subtus haud ad costam tantum pubescentibus, floribus maioribus distincte pedicellatis recedit.

Arbor ad 8 m. alta (ex *Kerr*); ramuli primo densius pubescentes, mox breviter crispatis pubescentes, brunneo- vel cinereo-brunneo-corticati. *Folia* oblongo-oblancheolata vel lanceolata, apice obtuse acuminata, basi cuneata, 9–15 cm. longa, 3–5.5 cm. lata, subcoriacea, sicco lutescentia, supra ad costam densius pubescentia, aliter parce pubescentia, demum ad costam tantum pubescentia, subtus sed ad costam densius molliter

piloso-pubescentia, nervis lateralibus utrinque 8–10 rectis vel subrectis bene intra marginem anastomosantibus supra conspicuis subtus prominulis, nervulis subtus prominulis, margine parte triente basali excepta denticulata, parum recurva, petiolo ad 1 cm. longo indumento ei ramulorum simili tecto suffulta. *Flores* albi (ex *Kerr*), solitarii, axillares, pedicello circa 5 mm. longo ut ramulis pubescente suffulti; bracteolae 2, oblongae vel oblongo-lanceolatae, obtusae, inter se parum inaequales, circa 10 mm. longae et 4 mm. latae, virides, unicostatae, dorso pubescentes, intra parcius pubescentes, ciliatae. *Sepala* 5, bracteolis subsimilia. *Petala* basi breviter coalita, usque ad 1·8 cm. longa et 1·2 cm. lata, extra adpresse pubescentia, intra glabra. *Stamina* lutea (ex *Kerr*), petalis dimidio breviora. *Pistillum* calyce paulo brevius, ovario 5-sulcato circa 4 mm. alto, stylis liberis approximatis circa 3 mm. altis cum ovario adpresse pubescentibus. *Fructus* ambitu obovatus, apice concavus, breviter stipitatus, 3·3 cm. altus, 2·3 cm. diametro.

Muang Fāng, Doi Pahom Pok, c. 1500–1600 m., evergreen forest, *Kerr* 5181.

***Adinandra oblonga* Craib** [Ternstroemiaceae-Ternstroemieae]; species nova foliis minoribus plus minusve oblongis distincta.

Arbuscula circa 4 m. alta (ex *Kerr*); ramuli iuventute breviter sparse adpresse pubescentes, cito glabri, cortice brunneo vel cinereo-brunneo obtecti, lenticellis parvis rotundatis. *Folia* oblongo-elliptica, oblongo-ovata, vel fere elliptica, apice breviter obtuse acuminata, interdum emarginulata, basi cuneata vel rotundata, 4–8·5 cm. longa, 2·7–4·7 cm. lata, coriacea, sicco viridi-lutescentia, subtus pallidiora, supra glabra, subtus pilis sparsis adpressis inconspicuis instructa, saepe sparse glandulosa, nervis lateralibus utrinque circa 20 pagina utraque prominulis intra marginem anastomosantibus, reticulatione pagina utraque subprominula, costa supra conspicue impressa subtus prominente, petiolo 4–5 mm. longo supra canaliculato tenuiter adpresse pubescente suffulta. *Flores* solitarii, axillares, pedicellis mox recurvis circa 2 cm. longis sparse inconspicue adpresse pubescentibus mox superne conspicue gradatim incrassatis suffulti; bracteae apicem versus pedicelli positae, cito deciduae. *Sepala* persistentia, ovata, oblongo-ovata, vel obovata, dorso exteriora sparsius, adpresse pubescentia, intra glabra, ciliata, ad 8 mm. longa et 6 mm. lata, accrescentia. *Petala* basi connata, ovato-lanceolata, subacuta, 11 mm. longa, 5 mm. lata, extra marginibus exceptis adpresse hirsuta, intra glabra. *Antherae* apiculo parce pubescente incluso vix 5 mm. longae, dorso adpresse pubescentes, filamentis 1·75 mm. longis apicem versus pubescentibus. *Ovarium* praesertim superne dense adpresse pubescens, stylo inferne adpresse pubescente apicem versus pilis paucis instructo.

Sukotai, Kao Luang, c. 1100 m., open grassy ground, *Kerr* 5923.

***Pterospermum grande* Craib** [Sterculiaceae-Helictereeae]; a *P. acerifolio* Wall., cui florum magnitudine petalisque glabris

approximat, sepalis haud reflexis, petalis latioribus inter alia recedit, a *P. diversifolio* Blume petalis latioribus glabris recedit.

Arbor circa 8 m. alta (ex *Kerr*), ramulis crassis iuventute dense albo- vel fulvo-tomentellis mox glabris cortice brunneo vel cinereo-brunneo obtectis. *Folia* oblonga, apice truncato-rotundata, triangulari-acuminata, basi rotundata, cordata, ad 33 cm. longa et 23 cm. lata, coriacea, supra nisi ad petioli insertionem et nervorum bases versus ubi tomentella glabra, subtus griseo-tomentella praetereaue pilis longioribus stellatis fulvis plus minusve deciduis instructa, nervis basalibus circa 12, nervis secundariis (e costa ortis) utrinque 6-8 omnibus supra parum impressis subtus prominentibus, nervis transversis inter se parallelis supra parum impressis subtus prominulis, nervulis supra hic et illic subconspicuis subtus prominulis, margine plus minusve undulata vel irregulariter lobulata, petiolo ad 6 cm. longo indumento nervorum ad 6 cm. supra laminae basem peltatim inserto suffulta. *Sepala* extra brunnea, intra pallide viridia (ex *Kerr*), lanceolata vel late lanceolata, basi plus minusve coalita, sicca ad 13.5 cm. longa et 2.5 cm. lata, crassa, extra brunneo-tomentosa, intra margine pallidius tomentella, medio pilis longiusculis fulvis plus minusve adpressis tecta. *Petala* alba (ex *Kerr*), sub-asciiformia, sicca 9.5 cm. longa, apicem versus 3 cm. lata, glabra, rigide papyracea. *Columna* staminea 1 cm. alta, antheris apiculatis 2.5 cm. longis. *Staminodia* petalis subaequalia, superne haud glabra. *Ovarium* fulvo-hirsutum, circa 1 cm. altum, stylo valido inferne fulvo-hirsutum.

Muang Pai, Doi Kiu Lom, c. 1500 m., open evergreen forest, *Kerr* 5497.

Shan name, Tawng Mawm (ex *Kerr*).

***Pterospermum venustum* Craib** [Sterculiaceae-Helicterae]; ab affinioribus orientalibus petalis glabris ob flores minores recedit.

Arbor circa 25 m. alta (ex *Kerr*); ramuli graciles, iuventute pallide dense tomentelli praetereaue pilis stellatis ferrugineis plus minusve deciduis instructi, mox cortice brunneo reticulato obtecti. *Folia* saepissime oblongo-oblanceolata, rarius suboblonga, apice longius acuminata, subobtusata, basi conspicue inaequilateralia, latere altero cuneata, altero rotundata vel cuneato-rotundata, ad 15 cm. longa et 5 cm. lata, chartacea, supra costa hic et illic stellato-pubescente excepta matura glabra, subtus pallide dense tomentella et ad costam nervos laterales et transversos pilis ferrugineis stellatis instructa, aliter pilis iisdem ferrugineis sparsissime instructa, costa supra impressa subtus prominente, nervis lateralibus utrinque 10-12 intra marginem anastomosantibus supra parum impressis subtus prominentibus, nervis transversis inter se parallelis supra conspicuis vel subconspicuis subtus conspicuis, margine integra, interdum parum undulata, petiolo ad 8 mm. longo indumento ei ramulorum simili tecto suffulta; stipulae cito deciduae, integrae, 7 mm. longae. *Flores* axillares, solitarii vel gemini, pedunculo communi perbrevis, pedicellis 0.4-1 cm.

longis; bracteae fugaces. *Sepala* ad basem libera, linearia, circa 4 cm. longa et 2 mm. lata, extra albo-tomentosa et pilis stellatis ferrugineis plus minusve deciduis instructa, intra adpresse longius fulvo-pubescentia. *Petala* angusta, circa 2-2.7 cm. longa, plus minusve curvata, glabra. *Columna* staminea 8-9 mm. longa, glabra, staminodiis 2.5 cm. longis superne puberulis, filamentis 1 cm. longis, antheris acumine incluso 8 mm. longis sparse breviter pubescentibus. *Ovarium* 6 mm. altum, tomentosum, stylo 2 cm. longo basi tomentoso superne saepe torquato. *Fructus* valde immaturus, dense tomentosus, 5-angulatus vel fere alatus.

Nakawn Tai, c. 200 m., evergreen forest, *Kerr* 5873.

Reevesia siamensis *Craib* [Sterculiaceae-Helictereae]; a *R. Wallichii* Br., foliis maioribus, nervis crassioribus et pedicellis multo magis robustis distinguenda.

Frutex circa 12 m. altus (ex *Kerr*); ramuli primo dense breviter stellato-tomentosi, cito glabrescentes, demum glabri, striati vel fere laeves, cortice rubro rubro-brunneo vel fusco obtecti, lenticellis conspicuis haud numerosis. *Folia* ovata vel oblongo-ovata, rarius oblonga vel oblongo-lanceolata, apice obtuse acuminata vel subacuminata, basi truncata, rotundata, vel minora plus minusve cuneata, ad 15 cm. longa et 7.7 cm. lata, rigide chartacea vel coriaceo-chartacea, sicco supra brunnescentia vel viridia, subtus viridia, supra glabra vel subglabra, subtus pilis parvis stellatis sparsis instructa, e basi trinervia praetereaue nervis 1-2 tenuioribus saepe additis, nervis secundariis (e costa ortis) utrinque 4-5 fere ad marginem anastomosantibus supra cum costa et nervis basalibus conspicuis subtus prominentibus, nervulis rete supra saepissime subconspicuum subtus prominulum efficientibus, margine integra, recurva, petiolo ad 3.5 cm. longo apicem versus breviter stellato-tomentoso aliter pilis similibus sparsius instructo suffulta; stipulae deciduae, cicatricibus parvis. *Inflorescentiae* generis, ramulos foliiferos terminantes, e corymbis racemosim dispositis constitutae, corymbis pedunculo communi 7-17 mm. longo suffultis, pedicellis circa 7 mm. longis sub apicem articulatis, partibus omnibus pilis parvis stellatis magis minusve dense instructis; bracteae deciduae. *Calyx* campanulatus, ad 6.25 mm. longus, extra breviter stellato-pubescent, intra glaber, lobis ovatis obtusis vel subquadratis breviter obtuse acuminatis circa 1.75 mm. longis. *Petala* decidua. *Columna* staminea 2-2.5 cm. longa, glabra, apice 5-lobata. *Ovarium* 1 mm. altum, stylo 0.5 mm. alto cum ovario stellato-pubescente. *Fructus* haud maturus densius breviter stellato-tomentosus, 10-sulcatus.

Kao Keo Kang, Dan Sai, c. 1300 m., edge of clearing in evergreen forest, *Kerr* 5797.

Helicteres vinosa *Craib* [Sterculiaceae-Helictereae]; species nova foliis subtus densius molliter pubescentibus, inflorescentia glandulifera, floribus inter maiores distinguenda.

Frutex circa 1.5 m. altus; ramuli dense molliter pubescentes vel subhirsuti, pilis primo pallidis mox brunnescentibus. *Folia*

saepissime elliptico-oblonga, apice saepius acuminata, acuta obtusave, basi cordata, rarius rotundata, saepius inaequalateralis, usque ad 15 cm. longa et 9.5 cm. lata, chartacea, supra viridia, pilis albis stellatis subrigidis tecta, subtus pallida, pilis stellatis longioribus et mollibus oblecta, e basi 5-7-nervia, nervis secundariis (e costa ortis) 4-6, omnibus supra conspicuis subtus prominentibus, nervulis supra parum impressis subtus prominulis, margine irregulariter denticulata, petiolo ad 1.5 cm. longo indumento ei ramulorum simili tecto suffulta; stipulae deciduae, subulatae, circa 1 cm. longae. *Spicae* in foliorum superiorum axillis positae, petiolis paulo longiores, breviter pedunculatae, pedunculo rhachi bracteis et alabastris indumento ei ramulorum simili tectis; bractee deciduae, angustae, circa 5 mm. longae; alabastra acuminata, glandula solitaria sessili nitida glabra ad floris cuiusque basem. *Calyx* 2 cm. longus, extra pilis stellatis oblectus, tubo apicem versus intra adpresse pubescente, lobis intra pubescentibus, basi antice parum gibbosus, lobis deltoideis, antico 2 mm. longo 1.75 mm. lato lateralibus paulo maiore, duobus posticis 4 mm. longis 2.25 mm. latis elongato-deltoideis haud reflexis. *Petala* 2.7 cm. longa, 5-6.5 mm. lata, apice retusq-truncata, ciliata, paulo infra medium lobulos duos laterales gerentia, limbis pilis brevibus subsparsis tectis. *Androphorum* 1.8 cm. longum, paulo supra basem fere ad apicem sed ibi parcius unilateraliter pubescens; staminodia petaloidea, filamentis subaequalia. *Ovarium* 1.25 mm. altum, parce breviter pubescens, stylo 2 mm. longo glabro. *Fructus* 5 cm. longus, indumento incluso 1.4 cm. diametro, stellato-pubescentis et processibus sat rigidis longiusculis pilos stellatos gerentibus tectus, gynophoro 2 cm. longo calyce persistente saepissime cincto suffultus; semina quadrangularia, faciebus planis pallide brunneis, atro-notata.

Nakawn Tai, c. 200 m., mixed deciduous jungle, flowers vinous, *Kerr* 5846.

Dalbergia Marcaniana *Craib* [Leguminosae-Dalbergiaceae]; ab affini *D. menoeide* Prain, habitu, bracteolis latioribus, petalorum basibus diversis inter alia recedit.

Suffrutex circa 0.5 m. altus (ex *Kerr*); ramuli iuventute pilis paucis adpressis ferrugineis instructi, cito glabri, annotini sicco brunnei, longitudinaliter striati, hornotini brunneo-cinerei, lenticellis elevatis conspicue notati. *Folia* 3-5-foliolata, petiolo communi 2-4.5 cm. longo sparse adpresse pubescente suffulta; foliola ovato-lanceolata vel lanceolata, apice acuta obtusave, mucronulata, basi rotundata vel cuneato-rotundata, 4.5-10.5 cm. longa, 2-4.5 cm. lata, chartacea vel rigide chartacea, supra glabra, subtus pallidiora, pilis brevibus adpressis sparse tecta, nervis lateralibus utrinque 8-10 bene intra marginem anastomosantibus sicco supra conspicuis subtus prominulis, nervulis supra plus minusve conspicuis subtus rete gracile conspicuum efficientibus, margine recurva, petiolulis 2-3 mm. longis pubescentibus suffulta; stipulae deciduae. *Inflorescentia* axillaris, pauciflora, circa 7 mm. longa, densius adpresse ferrugineo-

pubescens, pedicellis brevibus; bracteolae sat crassae, circa 2 mm. diametro, dorso pilis fulvis adpressis densius tectae, ciliatae. *Calyx* 4 mm. longus, lobis inter se subaequalibus rotundatis circa 1.5 mm. longis et 1.75 mm. latis dorso pilis brevibus adpressis fulvis tectis ciliatis. *Vexillum* 5 mm. longum, suborbiculare, apice emarginatum, basi biauriculatum, stipite 1.5 mm. longo suffultum; alae oblongae, basi latere altero hastatae, altero rotundato-auriculatae, 4.75 mm. longae, 2.5 mm. latae, stipite 2 mm. longo suffultae; carinae petala oblonga, basi latere altero hastata, altero truncato-hastata, 5 mm. longa, stipite 2 mm. longo suffulta. *Stamina* monadelpha. *Ovarium* glabrum, stylo 3 mm. longo. *Legumen* falcato-subreniforme, 3 cm. longum, 1.6 cm. latum, stipite 5 mm. longo suffultum, calyce persistente.

Bangkok. Paknam, near sea-level, in tidal mud along with *Derris uliginosa*, *Kerr* 6762.

***Bauhinia bracteata* Graham, var. *Marcanii* Craib** [Leguminosae-Bauhinieae]; a typa foliis basi alte cordatis subtus pilis divergentibus molliter pubescentibus, bracteis maioribus, pedicellis longioribus, floribus paulo maioribus recedit.

Hua Hin, 60 m., *Marcan* 368.

When more fully represented this plant, very distinct from the type in its foliage, may have to be accorded specific rank.

***Bauhinia Helferi* Craib** [Leguminosae - Bauhinieae]; a *B. bracteata* Graham, bracteis maioribus, pedicellis multo longioribus recedit.

Frutex alte volubilis; ramuli iuventute griseo-vel subferrugineo-tomentosi, mox fere glabri, cortice brunneo vel cinereo-brunneo obtecti. *Folia* oblata vel ovato-rotundata, apice ad partem trientem vel fere ad medium bilobata, lobis interdum conspicue divergentibus apice breviter obtuse acuminatis vel rotundatis, basi cordata vel truncato-cordata, usque ad 16 cm. longa et 19 cm. lata, sat rigida, supra viridia, primo sparse pilosa, matura nisi ad imam basem glabra, subtus pallidiora, breviter molliter ad nervos densius pubescentia, costa apice excurrente, nervis basalibus utrinque 4-5 intra marginem anastomosantibus supra conspicuis subtus prominentibus, nervis transversis supra conspicuis vel subconspicuis subtus prominulis, nervulis rete gracile efficientibus, petiolo ad 7 cm. longo basi apiceque incrassato terete suffulta; stipulae fugaces. *Racemi* conspicue bracteati, paniculam ad ramulorum apices efficientes, pedunculo communi brevi suffulti, griseo- vel ferrugineo-griseo-tomentosi; bracteae foliaceae, ellipticae vel ovato-ellipticae, apice brevius acuminatae, utrinque breviter pilosae, plus minusve conspicue nervosae, circa 10 mm. longae et 7 mm. latae; pedicelli 6-8 cm. longi, primo dense griseo-tomentosi, mox sparse pubescentes, fere ad medium vel saepissime supra medium bibracteolati, bracteolis nisi minoribus bracteis similibus. *Calycis* tubus circa 2 mm. longus, lobi sub anthesin liberi, lineares, apicem versus angustati, subacuti, ad 14 mm. longi

et 3 mm. lati, extra breviter crispatis pubescentes, intra pallidiores, sparse pubescentes, cito reflexi. *Petala* pallide viridia (ex *Kerr*), inter se subaequalia, ungui circa 15 mm. longo suffulta, limbo ovato vel elliptico basi decurrente ad 12 mm. longo 8 mm. lato conspicue nervoso utrinque piloso. *Stamina* fertilia 3, filamentis fere 4 cm. longis parce pilosis, antheris 3mm. longis. *Ovarium* 6 mm. longum, tomentosum, stipite 8 mm. longo pubescente suffultum, stylo 13 mm. longo pubescente sed apicem versus glabrescente, stigmatibus incrassato.—*B. bracteata*, auct. plur. quoad spec. burm. non *Graham*.

Chiengmai, Mè Chêm, c. 500 m., mixed deciduous forest by stream, *Kerr* 6270.

Distr. Tenasserim, *Helper* K.D. 1893.

Vern. Paw mung (ex *Kerr*).

Additional collections of material from Siam have confirmed the writer's statement (*Contrib. Fl. Siam*, p. 75) that "the Tenasserim plant quoted in *F.B.I.*, ii. p. 282 does not belong to this species" (i.e. to *B. bracteata* Grah.) and have added the Tenasserim species to the Siamese Flora. The Tenasserim plant quoted by all authors as *B. bracteata* is the plant described above as *B. Helferi*.

One result of regarding the Tenasserim plant as *B. bracteata* has been the re-description of the latter under at least two different names. *B. unguiculata*, described by Baker (*F.B.I.*, ii. p. 277) from Schomburgk's Siam specimen and by an oversight enumerated in *Pileostigma* instead of in *Phanera*, is only a form of the true *B. bracteata* Grah. In *Fl. Gen. Indo-Chine*, ii. p. 123 both *B. unguiculata* and *B. bracteata* are treated as insufficiently known, with the result that the plant is again described under the name *B. Harmandiana* Pierre ex Gagnep.

***Bauhinia Kerrii* Gagnep. var. *grandiflora* Craib** [Leguminosae-Bauhinieae]; a typo foliis maioribus pro longitudine latioribus, alabastris maioribus indumento vix tam denso tectis, floribus conspicue maioribus recedit.

Chieng Kien, near Chiengrai, c. 420 m., evergreen jungle, *Kerr* 2481.

***Bauhinia Prainiana* Craib** [Leguminosae-Bauhinieae]; a *B. polycarpa* Wall., foliis maioribus tenuioribus, stipulis maioribus diutius persistentibus, racemis brevioribus, legumine longiore et latiore, valvis planis haud inter semina depressis recedit.

Frutex ad 1.5 m. altus (ex *Kerr*): ramuli graciles, straminei vel brunneo-straminei, plurisulcati, glabri vel subglabri. *Folia* ambitu saepissime orbicularia vel suborbicularia, apice plus minusve ad partem trientem bilobata, lobis breviter obtuse acuminatis, basi distincte cordata vel interdum truncato-cordata, usque ad 17.5 cm. longa et 17 cm. lata, membranacea, supra glabra, subtus pallidiora, pilis brevibus albis adpressis inconspicuis instructa, costa excurrente, nervis basalibus utrinque 4-5 cum costa supra conspicuis vel prominulis subtus prominentibus, nervis transversis sat distantibus subtus prominulis, rete sub oculo armato gracili, petiolo 5-8 cm. longo

supra canaliculato subglabro stramineo basi apiceque incrassato suffulta; stipulae persistentes, setaceae, circa 5 mm. longae, ciliatae. *Racemi* circa 3 cm. longi, et terminales et in axillo supremo, simplices vel ramosi; bracteae bracteolacque breves; pedicelli sicco fusci, 3-4 mm. longi; alabastra ambitu plus minusve oblonga, breviter acuminata, pilis brevibus adpressis albis instructa. *Calyx* membranaceus, spathaceus, basi saccatus, sub anthesin 8 mm. longus, saepe bilobatus. *Petala* alba (ex *Kerr*), inter se subaequalia, oblongo-lanceolata vel oblongo-obovata, apice breviter obtuse acuminata, ad 15 mm. longa et 5-7 mm. lata, glabra, unicostata, nervis lateralibus conspicue anastomosantibus. *Stamina* inter se inaequalia, ad 8 mm. longa, filamentis inferne sparse pilosis, antheris 2.5 mm. longis. *Legumen* primo breviter adpresse pubescens, stylum brevem et stigma latum gerens, vix maturum 9 cm. longum, 1.4 cm. latum, stipite circa 4 mm. longo suffultum, valvis planis haud inter semina constrictis.—*B. polycarpa* Wall., var. *Kurzii* Prain in Journ. As. Soc. Beng., lxvi. p. 495 (1897).

Mê Mue, Mûang Tāk, c. 300 m., mixed deciduous forest, *Kerr* 6150.

Distr. Burma.

Prain, l.c., while according only varietal rank to *Kurzii* plant, recorded his conviction that when better known the plant would have to be ranked as a distinct species.

Bauhinia Sanitwongsei Craib [Leguminosae-Bauhinieae]; ob calycem sub anthesin saepissime 2-lobatum subherbaceum, stylum tenuiorem fere glabrum, stipitem breviorum et magis robustam a *B. bracteata* Graham distincta.

Frutex robustus, volubilis; ramuli glabrescentes, teretes, cortice rubro-brunneo vel subfusco obtecti, lenticellis parvis numerosis conspicuis instructi. *Folia* ambitu oblonga vel rotundato-oblonga, apice ad partem trientem vel fere ad medium bilobata, lobis apice rotundatis, basi altius cordata, usque ad 12.5 cm. longa et 11.5 cm. lata, subcoriacea, supra glabra, subtus pallidiora, cito fere glabra nisi ad nervos ubi pilis paucis divergentibus instructa, 11-13-nervia, nervis supra pallidis conspicuis subtus prominentibus, nervis transversis supra subconspicuis subtus prominulis, arcate reticulata, petiolo apice basique incrassato 3-5 cm. longo subterete suffulta. *Racemi* axillares, circa 10 cm. (pedunculo communi 2-3.5 cm. longo incluso) longi, e ramulis defoliatis orti, rhachi subferrugineo-tomentosa; bracteae deciduae, angustae, 4-8 mm. longae; pedicelli 5 cm. longi, breviter crispatis albo-pubescentes, fere ad medium bracteolis duabus ad 2 mm. longis angustis mox deciduis instructi; alabastra viridia, breviter adpresse pubescentia, plus minusve glabrescentia. *Calyx* sub anthesin in segmenta duo fissus, 7 mm. longus, extra puberulus, intra pallidior, glaber. *Petala* viridi-lutea, duo infima purpureo-nervosa (ex *Kerr*), ungui 13-18 mm. longo suffulta, limbis ad 10 mm. longis et 12 mm. latis, postico aliis paulo maiore et brevius unguiculato, unguibus pubescentibus, limbis

plus minusve pilosis. *Stamina* fertilia 3, filamentis 1·8 cm. longis pubescentibus, antheris vix 3 mm. longis. *Ovarium* dense pubescens, 3·5 mm. longum, stipiti subaequilongum, stylo 5 mm. longo apice glabro inferne gradatim magis pubescente, stigmate parvo.

Bangkok, cultivated by Dr. Yai Sanitwongse (ex *Herb. Kerr*).

Bauhinia strychnifolia *Craib* [Leguminosae-Bauhinieae]; a *B. cardinale* Pierre, cui facie persimilis, rhachi pedicellisque pilis plus minusve divergentibus instructis, alabastris haud dense adpresse rufo-pubescentibus inter alia recedit.

Caules e radice lignosa annui, ad 1·5 m. alti, interdum scandentes (ex *Kerr*); ramuli graciliter cirrhiferi, semiherbacei, tetragoni, sulcati, glabri vel interdum parciissime pubescentes, sicco rubro-brunnei vel castanei. *Folia* ovata, oblongo-ovata, vel ovato-lanceolata, apice integra, saepe acuminata vel subacuminata, mucronulata, basi rotundata vel truncata, cordatula, usque ad 12 cm. longa et 8 cm. lata, subcoriacea, pagina utraque glabra, e basi 5-nervia, nervis cum costa supra conspicuis vel prominulis subtus prominentibus, nervis secundariis (e costa ortis) utrinque 2-4 supra conspicuis vel subprominulis subtus prominulis, nervulis rete gracile pagina utraque conspicuum efficientibus, petiolo basi apiceque incrassato 1·5-3·8 cm. longo glabro supra canaliculato suffulta; stipulae deciduae, circa 3 mm. longae. *Racemi* terminales, ad 27 cm. (pedunculo communi ad 5-6 cm. longo excluso) longi, rhachi rubra (ex *Kerr*) sulcata breviter pubescente; bracteae angustae, alabastra juvenilia longius superantes, sub anthesin persistentes, pubescentes; alabastra nutantia; pedicelli 6-7 mm. longi, breviter pubescentes, apicem versus bracteolis duabus parvis instructi; receptaculum circa 5 mm. altum. *Calycis* coriacei tubus supra receptaculum 4 mm. longus, lobi 5, fere 5 mm. longi; calyx dorso puberulus, intra glaber, lobis ciliatis. *Petala* cum calyce rubra (ex *Kerr*), omnia ungui 2-3 mm. longo suffulta, postico late ovato obtuso basi truncato 10 mm. longo 9 mm. lato medio incrassato extra medio superne subsparse adpresse pubescente intra nisi inferne marginem versus sparse pubescente, lateralia subelliptica, obtusa, basi plus minusve cuneata, parum inaequilaterialia, 12·5 mm. longa, 7 mm. lata, extra superne adpresse pubescentia intra sparse pubescentia, antica oblonga, obtusa, basi cuneata, parum inaequilaterialia, 12 mm. longa, 5 mm. lata, utrinque sed intra densius pubescentia. *Stamina* fertilia 3, exserta, filamentis glabris 1·7 cm. longis sicco fuscis. *Ovarium* 6 mm. longum, cum stipite 3 mm. longo dense adpresse pubescens, ovulis circa 12, stylo 12 mm. longo adpresse pubescente pilis superne gradatim paucioribus, stigmate stylo subaequilato.

Kampêng Pêt, c. 100 m., open deciduous (*Dipterocarpus tuberculatus*) forest, *Kerr* 5958.

Vern. Ka yan (ex *Kerr*).

Bauhinia Winitii *Craib* [Leguminosae-Bauhinieae]; a *B. calycina* Ridl., foliis minoribus ad basem partitis, stylo glabro recedit.

Frutex alte scandens ; ramuli cirrhiiferi, sat validi, iuventute plus minusve adpresse rufo-pubescentes, sulcati, mox subglabri, castanei. *Folia* ambitu elliptico-oblonga, ad basem 2-partita, segmentis apice rotundatis, basi cordata, circa 4 cm. diametro, membranaceo-coriacea, basem versus pagina inferiore pilis rufis adpressis instructa, aliter glabra, nervis basalibus utrinque 4 subtus subprominentibus, rete gracili vix conspicuo, petiolo circa 1 cm. longo plus minusve rufo-pubescente suffulta. *Racemi* terminales, 15 cm. longi, rhachi 6-7 mm. diametro primo adpresse rufo-pubescente mox sparse pubescente ; bracteae deciduae, circa 5 mm. longae, adpresse rufo-pubescentes ; pedicelli 8 mm. longi, saepe persistentes ; alabastra ambitu ovato-lanceolata, obtusa, circa 3.5 cm. longa, dense breviter adpresse rufo-pubescentia, calycis tubo 6 cm. longo sulcato. *Calyx* sub anthesin bilabiatim fissus, segmentis 3.5 cm. longis 6 mm. latis intra pallidioribus glabris. *Petala* alba (ex *Winit*), ad 8 cm. longa et 4 cm. lata, dorso sparse pilosa. *Stamina* fertilia 10 (?), petalis subaequilonga, antheris circa 2 cm. longis. *Ovarium* glabrum, stipite circa 4 cm. longo suffultum, stylo glabro, stigmate peltato circa 4 mm. diametro. *Legumen* vix maturum, ad 27 cm. longum et 8 cm. latum, tenue, brunneum, stipite fere 6 cm. longo suffultum.

Kanburi, open dry deciduous forest, 30 m., *Winit* 494.

Siamese Name, Kew Nang.

According to *Winit* the bark is very astringent and is used by the natives for chewing with betel leaves.

***Gomphostemma strobilinum* Wall., var. *variegatum* Craib** [Labiatae-Prasieae] ; a var. *acaule* Prain, indumento foliorum et praesertim inflorescentiae tenuiore et sparsiore recedit.

Doi Sutep, evergreen jungle, c. 540-900 m., *Kerr* 835, 835 A. Doi Angkā, Pā Ngēm, 1110 m., *Garrett* 66.

***Actephila Collinsae* Hunter** [Euphorbiaceae-Phyllanthaeae] ; species nova ab *A. ovalis* (Ridl.) Gage, foliis haud longe acuminatis, nervulis inconspicuis, stylis haud ad basem liberis recedit.

Frutex 1-1.5 m. altus (ex *Marcan* et *Winit*) ; ramuli pseudoverticillati, iuventute parce pilosi, angulati, subcastanei, mox glabri, teretes, cinereo-corticati, lenticellis parvis conspicue instructi. *Folia* ad ramulorum apices aggregata, oblanceolata, late oblanceolata vel oblongo-oblanceolata, apice obtusa vel leviter obtuse acuminata, basi cuneata, 7-15 cm. longa, 2.4-5 cm. lata, rigide chartacea vel coriaceo-chartacea, sicco supra viridia vel castanea, nitida, glabra, subtus pallidiora, primo pilis paucis adpressis ad costam instructa, cito glabra, nervis lateralibus utrinque 12-15 intra marginem anastomosantibus pagina utraque magis minusve prominulis, margine integra, reflexa, petiolo 3-6 mm. longo suffulta ; stipulae deciduae, 2 mm. longae, dorso adpresse pubescentes. *Fl.* ♂ pedicellis circa 5 mm. longis suffulti. *Sepala* 5, ovato-lanceolata, ovata, vel oblongo-lanceolata, apice obtusa, 5 mm. longa, 2.5 mm. lata, dorso pilis paucis instructa, integra. *Petala* 5, circa

0·5 mm. longa. *Stamina* 5, omnino libera, in disco inserta, sepalis paulo breviora, antheris parvis globosis. *Discus* integer. *Ovarii* rudimentum evolutum, minutum. *Fl.* ♀ pedicellis circa 3·6 cm. longis glabrescentibus superne paulo et gradatim incrassatis suffulti. *Sepala* 5, paulo post anthesin elliptica, apice rotundata, 6 mm. longa, 5 mm. lata, glabra, cito aucta, prominenter circa 9-costata. *Petala* maris. *Discus* annularis. *Ovarium* breviter hirsutum; styli 3, integri, liberi, 3 mm. longi; stylopodium ovario fere dimidio brevius.

Petchaburi, 30–80 m., *Mrs. D. J. Collins* 601, *Marcan* 536, *Winit* 552.

Siamese Name, Si Som (ex *Winit*).

***Daphniphyllum longipes* Craib** [Euphorbiaceae-Phyllanthaeae]; ab affini *D. calycino* Benth., foliis maioribus longius petiolatis, floribus masculis longius pedicellatis recedit.

Arbor circa 5 m. alta (ex *Kerr*); ramuli fistulosi, primo parce pubescentes, pallide corticati, lenticellis parum elevatis conspicue instructi. *Folia* apices versus ramulorum disposita, oblongo-elliptica, apice acuminata vel subacuminata, basi cuneata, 11–29 cm. longa, 4·5–12·8 cm. lata, rigide chartacea, sicco haud fusciscentia, supra viridia, subtus pallide viridia, pagina utraque glabra, inferiore papillosa, nervis lateralibus utrinque 13–15 intra marginem anastomosantibus supra conspicuis saepe parum impressis subtus prominentibus nervulis supra conspicuis vel subconspicuis subtus prominulis, margine recurva, petiolo 3–10 cm. longo supra apicem basemque versus canaliculato medio terete vel subterete glabro vel sparse pubescente suffulta. *Racemi* masculi axillares vel ex axillis foliorum delapsorum orti, basi perulis deciduis instructi, rhachi pedunculo communi brevi vel perbrevis incluso 6 cm. longa glabra, pedicellis sub anthesin divaricatis 2·8 cm. longis. *Sepala* 4, quoad formam variabilia, saepissime ovata, late ovata, vel elliptica, ad 3 mm. longa et 2·5 mm. lata, glabra. *Stamina* 12, circa 3·25 mm. longa, sicco fusca.

Doi Sutep, 900 m., marshy ground in evergreen jungle, *Kerr* 3592.

***Trigonostemon Kerrii* Craib** [Euphorbiaceae-Cluytieae]; ab affini *T. heterantho* Wight, petiolo brevior, paniculis distincte pedunculatis, inter alia recedit.

Frutex 1·5–4-metralis (ex *Kerr*); ramuli primo hirsuti, mox plus minusve glabrescentes, cortice substramineo vel brunneo-stramineo obtecti. *Folia* lanceolata vel oblongo-lanceolata, obtuse acuminata, basi cuneata, rarissime subrotundata, ad 17 cm. longa et 4 cm. lata, chartacea vel rigide chartacea, supra primo ad costam nervosque laterales parce strigosa, mox glabra, subtus pilis similibus sed numerosioribus diutiusque persistentibus instructa, basi glandulis duabus vix 1 mm. longis instructa, nervis lateralibus utrinque ad 14 intra marginem anastomosantibus supra conspicuis subtus prominulis, margine minute glanduloso-denticulata, petiolo 0·3–3·8 cm. longo strigoso suffulta; stipulae parvae, cito deciduae. *Paniculae* ♂ axillares,

racemiformes, circa 8 cm. (pedunculo communi circa 2.5 cm. longo incluso) longae, pedunculo rhachi bracteisque breviter magis minusve adpresse hirsutis; pedicelli graciles, 6–8 mm. longi, glabri vel subglabri; bractee 3 mm. longae, intra glabrae. *Sepala* obovata, apice rotundata, plus minusve irregulariter denticulata, 1.5–2 mm. longa, 1.25–1.5 mm. lata, ciliata, dorso adpresse hirsuta. *Petalu* obovata vel rotundato-obovata, apice rotundata, basi in stipitem plus minusve distinctum angustata, 3.5 mm. longa, 2.5 mm. lata. *Disci* glandulae liberae. *Androeceium* 1.5 mm. altum, columna gracili, antheris 3 apice bilobis, loculis ad marginem connectivi crassi sitis. *Racemi* ♀ axillares, masculis subaequilongi iisque similes sed bracteis persistentibus conspicue longioribus pedicellis 2 cm. longis superne gradatim incrassatis. *Sepala* 4 mm. longa, glanduloso-laciniata, marginibus valde recurvis. *Petala* maris. *Disci* glandulae maiores, basi breviter connatae. *Ovarium* glabrum; styli fere ad basem liberi, apice bifidi. *Capsula* 7 mm. alta; calyx persistens, conspicue auctus, longitudine 1 cm. fere attingens.

Nakawn Tai, c. 200 m., evergreen forest, flowers dull red, *Kerr* 5871A, 5871. Mè Wong, Nakawn Sawawn, c. 100 m., mixed forest, flowers purplish red, *Kerr* 6006.

The inflorescences are borne on the current year's shoot, the staminate in the axils of the lower leaves, the pistillate in those of the upper, so that some of the younger specimens appear as if from a dioecious shrub.

***Blachia jatrophifolia* Pax et K. Hoffm., var. *siamensis* Craib** [Euphorbiaceae-Crotoneae]; a typo foliis paulo minoribus apice breviter obtuse acuminatis vel obtusis petiolo dimidio brevioribus suffultis recedit.

Sriracha, below 10 m., in deserted garden, possibly planted, *Kerr* 4257. Sriracha, *Mrs. D. J. Collins* 771.

Differing (ex descr.) rather markedly in some vegetative details from the Cochinchina *B. jatrophifolia* the Siamese plant appears to agree well in floral details. No specimens of the Cochinchina species are available for comparison here and I have consequently treated the Siamese plant as a variety.

***Scleria khasiana* C.B.Cl., var. *glaberrima* Turritt** [Cyperaceae-Sclerieae]; a planta typica caulibus foliisque glaberrimis differt.

Doi Sutep, 900–1000 m., common in open grassy jungle, *Kerr* 3358.

IX.—SCABIOSA RHODOPENSIS.

N. STOIANOFF and B. STEFANOFF.

Among plants in a sterile condition collected by us in the vicinity of the monastery of Băckovo, and cultivated in the University Botanic Garden, Sofia, was a species of *Scabiosa* with a singular appearance. In August last, a second visit was paid to this locality and we found the same plant flowering in

abundance. It is evidently a new species for which we propose the name *Scabiosa rhodopensis*.

Scabiosa rhodopensis sp. nov. (Section *Asterocephalus* Coult. Dips. 33 ; Boiss. Fl. Or. iii. 136).

Herba perennis, basi surculoso-caespitosa, ab collo squamoso caulibus adscendentibus, breviter et adpresse pubescens, subuni-floris. *Folia* basilaria oblongo-spathulata in petiolum attenuata, apice sub-rotundata ; caulina anguste linearia, basi connata, 6-8 cm. longa, 2-2.5 mm. lata, integra. *Capitula* florentia submajora, 4 cm. diametro, terminalia (rarissime 2-3 aggregata), involucri phyllis inaequalibus capitulo brevioribus elliptico-lanceolatis apice longe attenuatis 6 mm. longis. *Capitula fructifera* globosa 1.6-1.7 cm. diametro. *Flores* albi, extus tomentosi, radiantes. *Involucelli* tubus inferne teres, ecostatus, pilosus, superne in foveolas profundas 8 excavatus. *Corona* 25 radiata, crenulata, tubo paulo brevior. *Calycis* limbus subsessilis, aristis flavido-brunneis corona sub-longioribus instructus.

BULGARIA : in rupibus calcareis monte Rhodope supra coebium Bačkovo ad Cervena Stena, alt. 1500m. Floret Augusto.

Our plant is easily distinguished from all European species belonging to this group and especially from *Scabiosa graminifolia* L., to which it has some superficial resemblance. It appears to be most closely related to *Scabiosa sulphurea* Boiss. et Huet in Boiss. Fl. Or. iii. 136, a high mountain species growing in the Techdagh, near Erzerum, Eastern Armenia. The latter species, however, is characterized by "foliis radicalibus oblongo-lanceolatis acutis, . . . floribus sulphureis . . . involucelli corona 20-22 radiata, calycis aristis nigris corona multo longioribus."

The limestone cirque, in which *Scabiosa rhodopensis* grows, has very favourable ecological conditions which are suitable to the existence of a large number of species of oriental type. These include Balkan Peninsular endemics, and Asiatic and south-eastern European plants. The following elements are associated in abundance in rocky and dry places with our plant : *Silene Saxifraga* L., *S. Regis Ferdinandi* Deg. et Urum., *Vesicaria gracea* Boiss. et Reut., *Saxifraga Friderici Augusti* Bias., *S. Strybrnyi* Vel., *S. Ferdinandi Coburgi* Kell. et Sünd., *Potentilla geoides* M.B., *Astragalus angustifolius* Lam., *Rhamnus rupestris* Scop., *Viola Grisebachiana* Vis. et Panč., *Daphne oleoides* Schreb., *Linum rhodopeum* Vel., *Carum graecum* Boiss., *Seseli rigidum* W.K., *Sideritis scardica* Griseb., *Scrophularia rupestris* M.B., *Globularia cordifolia* L. var. *meridionalis* Podp., *Valeriana montana* L., *Morina persica* L., *Campanula lanata* Friv., *C. pusilla* Hke., *Trachelium rumelianum* Hampe, *Inula Aschersoniana* Jka., *Senecio macedonicus* Griseb., *Sesleria argentea* Savi, and *S. rigida* Heuff.

The moist and shady places are covered with societies of *Haberlea rhodopensis* Friv., *Arabis procurrens* W.K., ferns and many other rock plants.



SCABIOSA RHODOPENSIS.

Finally, the forest formations occurring in the more level places in the cirque are, in the same way, remarkable for the presence of endemics or rare forest types. Thus *Lathraea rhodopea* Dingler and *Cypripedium Calceolus* L. are not very rare in the beech forests. *Epipogon Gmelinii* Rich., *Goodyera repens* R. Br. and *Daphne Laureola* L. are abundant in the formation of *Abies alba*. *Goodyera repens* R. Br. and *Cypripedium Calceolus* L. grow in no other locality in Bulgaria outside this cirque.

A type specimen of *Scabiosa rhodopensis* has been presented to the Kew Herbarium.

X.—THE MEXICAN AND CENTRAL AMERICAN SPECIES OF OURATEA.

L. A. M. RILEY.

During the preparation of the "Materials for a Flora of British Honduras" by Mr. T. A. Sprague and myself* the necessity for this Revision became apparent. The flora of British Honduras possesses elements in common with so many other parts of tropical America—Mexico, Guatemala, Honduras, Cuba, Jamaica, and even with countries so far distant as the Guianas and Brazil—that it cannot be investigated satisfactorily without extensive collateral research into the floras of those regions. The results are being embodied in a series of papers of which this is the second, the first being "A Revision of the genus *Belotia*" by Mr. Sprague† in which the number of known species was more than doubled. In the present Revision the number of Mexican and Central American species of *Ouratea* is raised from nine to fifteen. These figures serve to indicate the incomplete state of our knowledge of the Central American forest flora.

The genus *Ouratea* (*Ochnaceae*) was originally described in 1775 by Aublet‡ but, owing to the undeserved neglect of Aublet's work by his contemporaries, it was known for many years under the later generic name *Gomphia* Schreb. (1789)§. The first species recorded from Mexico was *Gomphia mexicana* Humb. et Bonpl.||, which was discovered in 1803 by those authors between Acapulco and Chilpancingo in the State of Guerrero. Planchon, to whom we owe the first synopsis of the genus, added a second Mexican species, *G. Jurgensenii*, collected by Jurgensen in Oaxaca at "Sierra San Pedro Nolasco, Talea, etc.", in 1843–4¶. The same author described *G. Theophrasta***, which was discovered by Linden in 1840 in shady gorges in the neighbourhood of Teapa in the State of Tabasco, and was later introduced into cultivation by Ghiesbreght. Unaccount-

* Kew Bull. 1924, 1–20, et seq. † Kew Bull. 1921, 270–278. ‡ Aubl. Hist. Pl. Guiane Franç. i. 397, t. 152 (1775). § Schreb. Gen. i. 291 (1789).

|| Humb. et Bonpl. Pl. Aequinoct. ii. 21, t. 74 (1809); H.B.K. Nov. Gen. vi. 13 (1823). ¶ Hook. Lond. Journ. Bot. vi. 11 (1847). ** Linden. Cat. 1859, no. 14, 8.

ably, this original locality has been overlooked by later writers, who have cast doubt upon the native country of this species, and erroneously identified it with the closely-allied Brazilian *O. gigantophylla*.

Engler* in 1876 revised the whole of the American species known at that date, restoring the original name *Ouratea* and describing *O. globosa* (Mexico) and *O. guatemalensis* (Guatemala). In 1879 Hemsley† enumerated four species from Mexico and Central America and a possible fifth. His *Gomphia magdalenae* is *Ouratea nitida*, and his *G. nitida* includes two species *O. Wrightii* and *O. insulae*; *Gomphia* sp. no. 5 is *O. isthmica*. Two new Guatemalan species *O. podogyna* and *O. Tuerckheimii*, closely allied to *O. Theophrasta*, were added by Donnell Smith in 1893 and 1902 respectively‡.

Van Tieghem in 1902§ dealt at considerable length with *Ouratea*, which he divided into thirty-four genera, of which twenty-two are American. The value of Van Tieghem's genera of *Ochnaceae* may be gauged from the fact, pointed out by Gilg, that he placed material of the same species, *Ochna mossambicensis* Klotzsch, in three different genera, *Discladium*, *Diporidium* and *Polythecium*. His genera *Ouratella*, *Notouratea*, *Stenouratea* and *Trichouratea* are here treated as synonyms of *Ouratea*. Van Tieghem briefly described two new Central American species, *Stenouratea Wrightii* from Nicaragua, and *Ouratea panamica* collected by Duchassaing in Panama in 1851, which latter is conspecific with *O. nitida*. He also described as new a Mexican species, *Notouratea recurva*, from a specimen collected in Oaxaca by Galeotti in 1839; this is conspecific with *O. Jurgensenii*.

Urban¶ has published various critical notes on, and descriptions of, West Indian species of *Ouratea*. In 1899 he based a proposed new species, *O. cubensis*, on specimens collected in Cuba by Wright and Combs. This proves to be conspecific with *O. nitida*, which is now known also from British Honduras and Panama, in addition to Jamaica, where it was originally discovered. Standley, in his *Trees and Shrubs of Mexico***, records two species only as occurring in Mexico and, unfortunately, has wrongly identified both of them. His *O. pallida* is *O. mexicana* Humb. et Bonpl., and his *O. mexicana* is impossible to identify from the very brief description, and also on account of his omission to cite collectors' numbers. Six species are now recognised from Mexico, two of which are described for the first time.

My thanks are due to the Director, Royal Botanic Gardens, Kew, for the opportunity to study the material in the Kew herbarium and to Professor H. Lecomte of the Muséum

* Mart. Fl. Bras. xii. pars 2, 323, 345 (1876.) † Biol. Centr.-Amer., Bot. i. 176 (1879); et op. cit. iv. 111 (1887). ‡ Coult. Bot. Gaz. xviii. 2 (1893); et op. cit. xxxiii. 249, t. 10 (1902). § Ann. Sc. Nat. sér 8, xvi. 204-343 (1902). ¶ Urb. et Graebn. Festschr. Aschers. 105 (1904). ¶ Urb. Symb. Antill. i. 362-365 (1899); et op. cit. v. 425-430 (1908); viii. 434 (1920). ** Contrib. U.S. Nat. Herb. xxiii. 819 (1923).

d'Histoire Naturelle, Paris, for his courtesy in enabling me to examine material of three species of *Ouratea*, and to Dr. A. B. Rendle, Keeper of the Department of Botany, British Museum, for facilities for studying certain historic specimens.

CLAVIS SPECIERUM.

Folia 30–45 cm. longa, apice ramorum aggregata :

Folia oblanceolato - oblonga, nervis
tertiariis subtus manifestis :

Panicula folio brevior vel id sub-
aequans ; pedicelli alabastra
ovoidea aequantes vel iis
breviores 15. *Theophrasta*.

Panicula folia subaequans ; pedicelli
alabastris oblongo - ovoideis
longiores 14. *Tuerckheimii*.

Folia oblonga, nervis tertiaris subtus
haud manifestis ; panicula dimidium
folii aequans ; pedicelli alabastris
lanceolato-ovoideis longiores 13. *podogyna*.

Folia 4–17 cm. longa secundum ramos disposita :

Paniculae ramulos abbreviatis aphyllis
vel paucifoliatis terminantes ; rami
sicut ramuli non-abbreviati gemma
terminati ; folia 4–9 cm. longa 1. *mexicana*.

Paniculae ramulos foliatis non-abbrevia-
tos terminantes ; folia 8.5–17 cm.
longa :

Nervi et venulae utrinque insculpti :

Folia membranacea, basi acuta ;
paniculae folia vix aequantes ;
pedicelli alabastris 3-plo longi-
ores 3. *globosa*.

Folia coriacea, basi obtusa vel rotun-
data ; paniculae folia super-
antes ; pedicelli alabastris
1½–2-plo longiores 2. *nitida*.

Nervi et venulae haud insculpti :

Pedicelli 1 cm. longi vel ultra :

Folia serrulata, interdum incon-
spicue ; pedicelli 1–1.5 cm.
longi ; antherae obclavatae .. 5. *Jurgensenii*.

Folia argute serrata ; pedicelli
haud ultra 1 cm. longi ;
antherae subfusiformes 6. *pyramidalis*.

Pedicelli haud 1 cm. longi :

Folia obtuse et indistincte denti-
culata :

Folia haud vel brevissime acu-
minata 8. *oblita*.

Folia valde acuminata :

Nervi laterales numerosi,
 patentes, paralleli,
 petiolis circiter 3 mm.
 longis ; inflorescentia
 laxa, pauciramosa pedi-
 cellis robustis ; alaba-
 strā 8-8.5 cm. longa ;
 sepala extra rugosa 9. *isthmica*.

Nervi laterales pauciores,
 ascendentes, satis irregu-
 lares, petiolis 6-9 mm.
 longis ; inflorescentia
 densa, multiramosa,
 pedicellis gracilibus ;
 alabastrā 5.5-6 mm.
 longa ; sepala extra
 sublaevia 4. *insulae*.

Folia acute et distincte serrata :

Panicula late pyramidalis, satis
 ramosa ; antherae subfusi-
 formes 6. *pyramidalis*.

Panicula oblonga, pauciramosa ;
 antherae obclavatae :
 Alabastrā anguste ovoidea,
 peracuta vel breviter
 acuminata ; folia oblan-
 ceolato - oblonga, basi
 obtusa vel cuneata 11. *stenobotrys*.

Alabastrā late ovoidea, obtusa
 vel acuta :

Folia basi obtusa vel
 cuneata :
 Panicula densa, 5-6 cm.
 longa ; folia caudato-
 acuminata, fere
 ad basin serrata,
 stipulis 7-8 mm.
 longis 12. *Wrightii*.

Panicula laxa, 4-9 cm.
 longa ; folia breviter
 acuminata, inferne
 integra, stipulis
 5 mm. longis 7. *guatemalensis*.

Folia basi rotundata, vix
 vel breviter acuminata
 tantum ; panicula
 8 cm. longa 10. *Peckii*.

1. *O. mexicana* (Humb. et Bonpl.) Engl. in Mart. Fl. Bras. xii.
 pars 2, 312 (1876).—*Gomphia mexicana* Humb. et Bonpl. Pl.

Aequinoct. ii. 21, t. 74 (1809); DC. Monogr. Ochnac. et Simaroub. 23 (Ann. Mus. Par. xvii. 420; 1811); H.B.K. Nov. Gen. et Sp. vi. 13 (1823); Hemsl. Biol. i. 176 (1879). *Ouratella mexicana* Van. Tiegh. in Ann. Sc. Nat. sér. 8, xvi. 289 (1902). *Ouratea pallida* Standley in Contrib. U.S. Nat. Herb. xxiii. 820 (1923).

MEXICO. Guerrero: Between Acapulco and Chilpancingo, *Humboldt and Bonpland*; Acapulco and vicinity, *Palmer* 412. Sinaloa: Escuinapa; Cerrito de Fuerte, 30 m., *Gonzalez* 1134.

Vernacular name "Palo chino" (Gonzalez).

I have compared Palmer's specimen with Humboldt and Bonpland's figure. Their plant, as represented, has somewhat broader leaves with coarser serration. In other respects, Palmer's specimen well agrees, except that, on dissection, I find the petals slightly emarginate. Comparison of Standley's description of *O. pallida* with the original description of *O. mexicana*, amplified in Nov. Gen. et Sp. l.c., reveals so many points of similarity that I have no hesitation in citing *O. pallida* simply as a synonym. As to Standley's *O. mexicana*, beyond the fact that it certainly is not *O. mexicana* of Humboldt and Bonpland it is impossible to go. It may possibly be *O. guatemalensis* Engler, or even a new species.

Van Tieghem (l.c.) separated his genus *Ouratella* mainly on the lateral character of the inflorescence, the leaves being deciduous and the flowers appearing before, or at the same time as, the new leaves. While these characters are hardly of generic value, they seem to justify the recognition of a distinct section of *Ouratea* comprising *O. mexicana* and *O. Guildingii* (Planch.) Urb.

2. *O. nitida* (Swartz) Engl. in Mart. Fl. Bras. xii. pars 2, 310 (1876), quoad stirp. jamaïc. tantum; Maza, Periant. 46 (1894).—*Ochna nitida* Swartz, Prodr. 67 (1788). *Gomphia nitida* Vahl, Symb. ii. 49 (1791); Swartz, Fl. Ind. Occ. ii. 739 (1800); Planch. in Hook. Lond. Journ. Bot. vi. 12 (1847); Griseb. Cat. Pl. Cub. 36 (1866); Sauv. Fl. Cub. 20, n. 339 (1873). *Trichouratea nitida* Van Tiegh. in Ann. Sc. Nat. sér. 8, xvi. 235 (1902), quoad syn. *Ouratea cubensis* Urb. Symb. Antill. i. 362 (1899); Van Tiegh. l.c. 252 (1902). *O. panamica* Van Tiegh. l.c. 263. *Gomphia acuminata* A. Rich. in La Sagra Hist. Cuba, x. 139 (1845); Ess. Fl. Cub. 338; Combs in Trans. Acad. Sc. St. Louis, vii. 407 (1897); non DC. *G. Magdalenae* Hemsl. Biol. i. 176 (1879), non Triana et Planch.

BRITISH HONDURAS. Belize, *March* 1913; *Campbell* 16; *Peck* 22. PANAMA. *Duchassaing*. CUBA. *Wright* 2115. Santa Clara: Cienaguita; in savannahs and woods, gravelly poor soil, infrequent, *Combs* 171. Pinar del Rio: Laguna Jovero and vicinity, *Shafer* 10845. Vuelta de Abajo (ex A. Rich. ll. cc.). JAMAICA. *Roger Shakespear* (Mus. Brit.).

Vernacular name "Guanabanilla de Monte" (Cuba).

O. nitida was originally discovered in woods in the interior of Jamaica by Swartz. I have not seen his type, but have examined a specimen in the British Museum collected in Jamaica by Roger

Shakespear which is named *Gomphia nitida* in Swartz's handwriting, and agrees with his description. I can find no characters by which to separate specifically the Cuban material which Urban has distinguished as *O. cubensis*.

Judging from Van Tieghem's description, the actual specimens which he associated with the new combination *Trichoureatea nitida* are not conspecific with *O. nitida* (Swartz). The simultaneous development of leaves and flowers suggests *O. Guildingii* Urb.

3. *O. globosa* Engl. in Mart. Fl. Bras. xii. pars 2, 323 (1876); Van Tiegh. in Ann. Sc. Nat. sér. 8, xvi. 291 (1902).

MEXICO. Lizando, Wawra 273.

I have seen no material of this species.

4. *Ouratea insulæ* Riley, sp. nov.

Ramuli robusti, 2-3 mm. diametro infra folium supremum, cinerascetes. *Folia* oblonga, 10-13 cm. longa, 3.5-3.8 cm. lata, valde acuminata, basi cuneata vel obtusa, superne et medio remote et inconspicue dentata, inferne integra, concoloria, supra nitidula, costa tantum conspicua, subtus opaca, nervis ascendentibus venisque patentibus satis manifestis; petioli 6-9 mm. longi; stipulae triangulato-lanceolatae, circiter 3 mm. longae. *Panicula* late pyramidalis, divaricato-ramosa, 8-16 cm. longa, ramulis patulis densifloris 4-10.5 cm. longis; pedicelli bini vel terni, brevissime pedunculati, graciles, 6-9 mm. longi; bractee subulatae, ferrugineae, circiter 2 mm. longae. *Albastra* (in sicco) ovoidea, 5.5-6 mm. longa, 3 mm. lata, obtusa et breviter acuminata. *Sepala exteriora* oblongo-lanceolata, 6.25 mm. longa, 2 mm. lata, apiculata, basi rotundata, brunnea, marginibus pallidioribus, extra laevia; *sepala interiora* oblongo-ovata, breviter apiculata, 6.25 mm. longa, fere 3 mm. lata marginibus hyalinis 0.75 mm. latis inclusis. *Petala* in toto 7.5 mm. longa, 6.5 mm. lata, ungue 3 mm. longo medio 1.5 mm. lato; lamina transverse elliptica, apice rotundata vel subtruncata. *Antherae* 9, sessiles, 5.5 mm. longae, transverse rugulosae, in apicem obtusum gradatim angustatae pallescentesque. *Ovaria* 5, ellipsoidea, fere 1 mm. longa, 0.5 mm. diametro, gynophoro 0.5 mm. longo insidentia; stylus 5.5 mm. longus, arcuatus tantum. *Fructum* non vidi.—*Gomphia nitida* Hemsl. Biol. iv. 111, non Swartz.

HONDURAS. Ruatan Island, Gaumer 89 (type in Herb. Kew);

5. *O. Jurgensenii* (Planch.) Engl. in Mart. Fl. Bras. xii. pars 2, 352 (1876).—*Gomphia Jurgensensii* Planch. in Hook. Lond. Journ. Bot. vi. 11 (1847); Hemsl. Biol. i. 176 (1879); Van Tiegh. in Ann. Sc. Nat. sér. 8, xvi. 290 (1902). *Notouratea recurva* Van Tiegh. l.c. 220. descr. ampl.

Floris descriptio, quae adhuc deest, ex alabastro semiaperto confecta sequitur. *Sepala exteriora* ovato-lanceolata, 8 mm. longa, 2.75 mm. lata, obtusa, basi subtruncata; *sepala interiora* oblongo-ovata, 8 mm. longa, 3 mm. lata marginibus hyalinis 1 mm. latis inclusis, obtusissima, basi vix truncata. *Petala* obovata, 8.5 mm. longa, 4.25 mm. lata, rotundata, basi

1 mm. lata, costa valde incrassata nigrescente. *Antherae* 9, sessiles, obclavatae, 6–6.5 mm. longae, transverse rugulosae. *Ovaria* 5, ellipsoidea, 0.75 mm. longa, 0.5 mm. diametro, gynophoro 0.75 mm. longo insidentia; stylus 5 mm. longus, flexuosus. *Carpophorum* campanulato-turbinatum, recurvum, unam vel rarius duas drupas gerens. *Drupa* (ex Van Tiegh. l. c. 220) ovoidea nigra, 8–10 mm. longa, 7–8 mm. diametro.

MEXICO. Oaxaca: Sierra San Pedro Nolasco, Talea etc., *Jurgensen* 779; Chinantla, 900 m., fr. June, *Galeotti* 7243.

The labels accompanying Jurgensen's specimens uniformly give the locality as "Sierra San Pedro Nolasco, Talea, etc.," without specifying the State. There is a town called Talea 36 miles north-east of the city of Oaxaca which I assume to be the one visited by Jurgensen. I have been unable to trace any other town of the same name. Planchon remarks that this species may easily be recognized by the narrow long-acuminate leaves and the fine reticulation. In addition to these characters, the long slender pedicels (up to 1.5 cm.) distinguish it from all other Mexican and Central American species.

6. *Ouratea pyramidalis* Riley, sp. nov.

Ramuli graciles, subflexuosi, 1.5 mm. diametro infra folium supremum, fusco-cinerascentes. *Folia* oblongo-elliptica, 11.5–15.5 cm. longa, 4–5 cm. lata, acuminata vel caudato-acuminata, basi cuneata, ab apice usque infra medium argute serrata, illinc fere ad basin remotius et minus conspicue dentata, membranacea, concoloria, utrinque opaca, supra costa et nervis satis manifestis, subtus costa et nervis ascendentibus et venis venulisque omnivagis conspicuis; petioli 4 mm. longi; stipulae subulatae, 1.25 mm. longae. *Panicula* laxa et patule pyramidalis, 6.5–7 cm. longa, 6.5–7 cm. lata, rhachi gracili subflexuosa angulosa; rhachillae circiter 1.5 cm. longae; pedunculi 2.5–4 mm. longi, 1–3-flori; pedicelli 0.7–1 cm. longi; bractee mox caducae, circiter 1.25 mm. longae. *Alabastra* (in sicco) oblongo-ovoidea, 6 mm. longa, 2.75 mm. lata, obtusissima. *Sepala exteriora* oblongo-ovata, 7 mm. longa, 3 mm. lata, apice obtusa, basi rotundata vel subtruncata, marginibus vix pallidioribus, extra apice subrugulosa; *sepala interiora* oblonga, 6.75 mm. longa, vix 3 mm. lata marginibus hyalinis 1 mm. latis inclusis, obtusa, basi truncata. *Petala* late spathulata, 9 mm. longa ungue 3.5 mm. longo 1.5 mm. lato incluso, 6 mm. lata, apice rotundata. *Antherae* 10, sessiles, elongatae, subfusiformes, 6.5 mm. longae, maxima ex parte ferrugineae, rugulosae. *Ovaria* 5, ellipsoidea, vix 1 mm. longa, 0.5 mm. diametro, gynophoro 1.5 mm. longo insidentia; stylus 4.5 mm. longus, rectus, apice subarcuato. *Fructum* non vidi.

MEXICO. Tabasco: near the village of Atasta, fl. June, *Rovirosa* 495 (type in Herb. Kew). GUATEMALA. Ocús, fl. Jan., *Bernoulli and Cario* 3046 (Herb. Kew).

This species may be easily distinguished from the preceding by the argutely serrate leaves, the stouter pedicels not exceeding 1 cm., and the well-defined claw of the petal.

7. *O. guatemalensis* Engl. in Mart. Fl. Bras. xii. pars 2, 345 (1876); S. Wats. in Proc. Am. Acad. xxi. 462 (1886). *Gomphia guatemalensis* Brigham, Guatemala, 426 (1887).

GUATEMALA. *Friedrichsthal* 780; Retaluleu, fl. Dec., *Bernoulli and Cario* 3043; Yzabal: a small shrub in forests at the Chocon plantation, fr. March, *S. Watson* 39 (Herb. Kew).

I have not seen the type (*Friedrichsthal* 780). The other specimens cited agree fairly well with Engler's description.

8. *Ouratea oblita* Riley, sp. nov.

Ramuli satis robusti, 1.5 mm. diametro infra folium supremum, fulvo-cinerascentes. *Folia* oblongo-elliptica, 8.5–10 cm. longa, 3–4 cm. lata, obtusa vel breviter acuminata, basi obtuse cuneata, superne remote et inconspicue denticulata, inferne integra, coriacea, supra nitidula, costa applanata nervis ascendentibus et venis patentibus conspicuis, subtus opaca; petioli vix 2 mm. longi; stipulas non vidi. *Inflorescentia* pauciramosa (revera pyramidalis?); rami primarii patuli vel patentibus, 6.5–7 cm. longi, laxi, pauciflori; pedunculi 1–4.5 mm. longi, plerumque breves et multiflori, infimi tantum longiores et 2-flori; pedicelli 4–5 mm. longi; bracteae vix 1 mm. longae. *Alabastra* (in sicco) ovoidea, 6.5 mm. longa, 4.5 mm. diametro, obtusissima. *Sepala exteriora* oblongo-lanceolata, vix 8 mm. longa, 2.5 mm. lata, apice obtusa, basi subrotundata; sepala interiora ovata, 7.5 mm. longa, 3.5 mm. lata marginibus pallidioribus inclusis, obtusa, basi rotundata. *Petala* 8 mm. longa ungue 2 mm. longo medio fere 2 mm. lato incluso, 8 mm. lata, lamina transverse elliptica apice subrotundata. *Antherae* sessiles, obclavatae, 5.5 mm. longae, transverse rugosae. *Ovaria* 5, ellipsoidea, 0.75 mm. longa, 0.5 mm. diametro gynophoro vix 0.75 mm. longo insidentia; stylus 5.5 mm. longus, subflexuosus, subacutus. *Fructum* non vidi.

MEXICO: Herb. Sessé et Moci o (type in Mus. Brit.).

The specimen is labelled *Ochna Jabotapita* N [ueva] E [spaña] probably in Ruiz' handwriting.

9. *Ouratea isthmica* Riley, sp. nov.

Frutex 3–4.5 m. altus. *Ramuli* graciles, 1.25 mm. diametro infra folium supremum, fulvo-cinerascentes, longitudinaliter striati, glabri vel apice minute pubescentes. *Folia* oblongo-elliptica, 10–10.5 cm. longa, 3–4 cm. lata, acuminata, basi cuneata vel obtusa, fere ad basin obtuse et inconspicue denticulata, tenuiter coriacea, discoloria, supra nitidula, subtus opaca et pallidiora, nervis et venis crebris patentibus parallelis, supra satis manifestis, subtus indistinctis costa tantum conspicua; petioli 2.5–3 mm. longi; stipulae delapsae. *Panicula* laxa, oblonga, 10–12.5 cm. longa, ramo laterali solemni e basi nonnunquam oriente; pedunculi 1–3-flori. 2–5 mm. longi; pedicelli crassi, 6–8 mm. longi. *Alabastra* (in sicco) ovoidea, 8–8.5 mm. longa, 4.5–5 mm. lata, obtusa vel subapiculata. *Floris* characteres ex alabastro maturo descripti. *Sepala exteriora* ovato-lanceolata, 9.5 mm. longa, 4 mm. lata, basi rotundata,

ad apicem obtusum gradatim angustata, nigra marginibus pallidioribus, extra rugosa; sepala interiora ovato-oblonga, apiculata, 9.5 mm. longa, 4.25 mm. lata marginibus hyalinis 1.5 mm. latis inclusis. *Petala* sepalis vix longiora. *Antherae* 9, sessiles, obclavatae, curvatae, 6 mm. longae, transverse rugosae. *Ovaria* 5, 0.75 mm. diametro, fere globosa, gynophorum aequantia; stylus obtusus, 6 mm. longus, infra medium tortus. *Fructum* non vidi.—*Gomphia* sp. Hemsl. Biol. i. 176 (1879).

PANAMA. Lion Hill Station, fl. Jan., *Sutton Hayes* 540 (type in Herb. Kew).

Distinguished by the very numerous fine parallel patent nerves of the leaves which suggest those of a *Calophyllum*.

10. ***Ouratea Peckii* Riley, sp. nov.**

Ramuli graciles, 1.5 mm. diametro infra folium supremum, fusco-cinerascentes. *Folia* oblonga vel lanceolato-oblonga, 10–13 cm. longa, 3.5–5 cm. lata, acuminata, basi rotundata vel subtruncata, superne argute et laxe serrata, subcoriacea, concoloria, supra nitidula, subtus subopaca, costa et nervis ascendentibus venisque patentibus utrinque manifestis; petioli incrassati, 2.5–3 mm. longi; stipulae triangulato-acuminatae, 6 mm. longae, basi 2.25 mm. latae, longitudinaliter striatae marginibus pallidioribus. *Panicula* semel ramosa tantum, oblonga, laxa pauciflora, 7 cm. longa; pedunculi inferiores 2–2.5 mm. longi, 1–2-flori, superiores vix evoluti; pedicelli robusti, 7–8 mm. longi; bracteae triangulatae, subacutae, 2 mm. longae. *Alabastra* (in sicco) late ovoidea, 6 mm. longa, 4.5 mm. lata, obtusa. *Sepala exteriora* ovato-oblonga, 7.5 mm. longa, 4 mm. lata, obtusissima, in basin truncatam rotundata, extra subrugulosa; sepala interiora ovato-oblonga, 7.5 mm. longa, 4 mm. lata marginibus hyalinis 1.5 mm. latis inclusis, obtusa, in basin truncatam rotundata. *Petala* obovata, 8.5 mm. longa, 6 mm. lata, apice rotundata, basi 0.75 mm. lata. *Antherae* 10, sessiles, obclavatae, 5.5 mm. longae, transverse rugosae, apice pallidiores. *Ovaria* 5, ellipsoidea, 1 mm. longa, 0.75 mm. diametro, subrugulosa, gynophoro vix 0.75 mm. longo insidentia; stylus 5 mm. longus, rubidus, in medio tortus. *Fructum* non vidi.

BRITISH HONDURAS. *Peck* 617 (type in Herb. Kew).

11. ***Ouratea stenobotrys* Riley, sp. nov.**

Ramuli 1.75 mm. vel fere 2 mm. diametro infra folium supremum, grisei. *Folia* oblongo-elliptica vel oblongo-oblan-
ceolata, 10–18 cm. longa, 3.5–5.5 cm. lata, valde acuminata, basi obtusa vel cuneata, superne circiter ad medium argute serrata, subcoriacea, supra subnitidula, costa et nervis ascendentibus manifestis, venis crebris patentibus parallelis haud conspicuis, subtus opaca, paullo pallidiora, costa appplanata, nervis satis manifestis; petioli 4–5 mm. longi; stipulae triangulato-acuminatae, 8 mm. longae, basi circiter 2 mm. latae. *Panicula* semel ramosa tantum, oblonga, satis densa, 12.5–15 cm. longa, circiter 2 cm. lata; pedunculi 2.5–3 mm. longi, in parte inferiori paniculae 1–2 flori, in parte superiori vix evoluti; pedicelli

graciles, 5–9 mm. longi; bracteae conspicuae, lanceolato-acuminatae, 3·5–6 mm. longae, longitudinaliter striatae. *Alabastra* (in sicco) anguste ovoidea, 6·5–7 mm. longa, 3·25–4 mm. lata, acuta vel acute acuminata. *Sepala exteriora* ovato-lanceolata, 8·5 mm. longa, 3 mm. lata, minute apiculata, basi rotundata, extra subrugulosa marginibus haud pallidioribus; *sepala interiora* oblonga, 8·5 mm. longa, 3·25 mm. lata marginibus hyalinis 1 mm. latis inclusis, conspicue apiculata. *Petala* obovata, 9 mm. longa, 6 mm. lata, apice rotundata, basi truncata 1·25 mm. lata. *Antherae* 10, sessiles, obclavatae, 6 mm. longae, transverse rugosae, apice pallidiores. *Ovaria* 5, oblonga, 1 mm. longa, vix 0·75 mm. diametro, gynophoro 0·75 mm. longo insidentia; stylus 5 mm. longus, subflexuosus, apice uncinatus. *Fructum* non vidi.

BRITISH HONDURAS. *Hooper* (type in Herb. Kew).

Remarkable for the long narrow panicle and the slender acuminate buds.

12. **Ouratea Wrightii** (Van Tiegh.) Riley, comb. nov., descr. ampl.

Frutex (Seemann). *Ramuli* robusti, subflexuosi, 1·75 mm. diametro infra folium supremum, fusco-cinerascentes. *Folia* oblongo-oblanceolata vel anguste oblanceolata, 12·5–17 cm. longa, 3–5·5 cm. lata, caudato-acuminata, basi obtusa vel cuneata, superne spinuloso-serrata, inferne fere ad basin argute serrata, coriacea, supra olivacea, opaca, subtus paullo pallidiora, costa excentrica nervisque ascendentibus et venis patentibus utrinque conspicuis; petioli incrassati, 3–4 mm. longi; stipulae longe triangulato-acuminatae, 8–9 mm. longae e basi 2 mm. lata, minute et remote denticulatae, longitudinaliter striatae. *Panicula* semel ramosa tantum, oblonga, densa, 5·5 cm. longa, circiter 2·5 cm. lata; pedunculi 1–3-flori, 1–1·5 mm. longi; pedicelli 5–6 mm. longi, incrassati, conspicue rugosi; bracteae lanceolatae, 1·75 mm. longae, extra rugulosae. *Alabastra* (in sicco) late ovoidea, 6 mm. longa, 4 mm. lata, obtusa. *Floris* characteres ex alabastro maturo descripsi. *Sepala exteriora* ovato-lanceolata, 7 mm. longa, 3·25 mm. lata, apice obtusa, basi rotundata, marginibus anguste pallidioribus, extra rugulosa vel apice subpapillata, ferruginea, nervis satis manifestis; *sepala interiora* ovato-lanceolata, 7 mm. longa, 3 mm. lata marginibus hyalinis vix 1 mm. latis inclusis, minute apiculata, basi rotundata. *Petala* obovata, 6 mm. longa, 3·75 mm. lata, apice rotundata vel obtusa, in basin truncatam quasi in unguem angustata. *Antherae* 10, obclavatae, 5 mm. longae, transverse rugosae, apice pallidiores. *Ovaria* 5, ellipsoidea, 1·25 mm. longa, 0·75 mm. diametro, gynophoro 1 mm. longo insidentia; stylus 3·5 mm. longus, rectus, rubidus, apice pallidior. *Drupae* 2, ellipsoideae, 8·5 mm. longae, 7 mm. diametro, longitudinaliter rugulosae, carpophoro obconico circiter 5 mm. longo et 5 mm. diametro insidentes.—*Stenouratea Wrightii* Van Tiegh. in Ann. Sc. Nat. sér. 8, xvi. 219 (1902). *Gomphia nitida* Seem. Bot.

Herald, 97 ; Triana et Planch, in Ann. Sc. Nat. sér. 4, xviii. 274 ; Hemsl. Biol. i. 176 ; non Swartz.

NICARAGUA. Wright. PANAMA. Chagres, fl. et fr. Feb., Fendler 303 ; in dark forests near Cruces, Seemann 547 (Herb. Kew ; Mus. Brit.).

In Seemann's specimen (Herb. Kew) the leaves are proportionally narrower, and more acutely cuneate at the base than in Fendler's, and the internodes are shorter, thus giving a denser appearance to the foliage. The specimen under the same number at the British Museum is intermediate in character.

13. *O. podogyna* Donn. Smith in Coult. Bot. Gaz. xviii. 2 (1893) ; Enum. Pl. Guat. iii. 18 (1893).

GUATEMALA. Alta Verapaz : Pansamalá forest, 1140 m., Tuerckheim 1034.

"A tree 15-18 ft. high, with leaves resembling in form and size those of *O. gigantophylla* Engl., but with flowers more nearly those of *O. olivaeformis* Engler." (Donnell Smith l.c. 2). I have seen no material of this species.

14. *O. Tuerckheimii* Donn. Smith in Coult. Bot. Gaz. xxxiii. 249, t. 10 (1902) ; Enum. Pl. Guat. vi. 6 (1903).

GUATEMALA. Alta Verapaz : Cubilquitz, 350 m., Tuerckheim 7829.

15. *O. Theophrasta* (Planch.) Baillon, Hist. Pl. iv. 359 (1873). *Gomphia Theophrasta* Planch. in Lind. Cat. 1859, no. 14, 8 ; et in Hort. Lind. 13 (1859) ; Hook. f. Bot. Mag. t. 5642. *Wolkensteinia Theophrasta* Regel in Gartenflora xiv. 131, t. 471 (1865) ; Van Tieghem in Ann. Sc. Nat. sér. 8, xvi. 244 (1902). *Ouratea gigantophylla* Engl. in Mart. Fl. Bras. xii., pars 2, 338 (1876) partim, non Erhard.

MEXICO. Tabasco ; discovered by Linden in 1840 in shady gorges in the neighbourhood of Teapa, and later introduced into cultivation by Ghiesbreght.

There is a living plant of this species, which probably provided the material for the figure in the Botanical Magazine, in the Palm House at Kew. It is about ten feet high with a stout, little-branched stem, bare except for the dense crowded tuft of leaves at the apex of each branch which characterizes this section of the genus.

The plant of *O. Theophrasta* on which Regel founded the genus *Wolkensteinia* evidently bore imperfectly developed inflorescences with abnormal flowers.

A fourth member of this section is *Ouratea gigantophylla* (Erhard) Engl., a Brazilian species hitherto known only from the provinces of Bahia and Rio de Janeiro. With this Engler united *O. Theophrasta*, but the latter, though very closely related, may be distinguished by the long narrow subulate stipules.

XI.—AN UNDESCRIBED VARIETY OF *TILIA* *HENRYANA*.

C. V. B. MARQUAND.

In 1895 a specimen of a *Tilia* was received at Kew from Mr. W. R. Carles, who had collected it during the previous year in the province of Kiangsu, Eastern China. Another specimen, presented by the U.S. Dept. of Agriculture and collected by Mr. F. N. Meyer in 1915 near Nanking, was subsequently received under the name of "*T. Henryi*", but no authority for this name was stated, and it does not appear to have been published. It is possibly an error for *T. Henryana* Szysl. (figured and described in Hooker's *Icones Plantarum* t. 1927), with which it most closely agrees but is distinct in the much longer marginal awn-like bristles on the lobes of the leaves, and in the cross nerves of the lamina as viewed from the underside being hardly raised above the mesophyll, also in the almost complete absence of the short rufous pubescence of stellate hairs which is characteristic of the type of that species which is in the Kew Herbarium.

These two specimens agree exactly, but in view of the fact that there are some intermediates, notably "1503 Coll. E. H. Wilson, West Hupeh, July, 1909," it appears to be scarcely worthy of specific rank. It may however be given rank as a distinct variety, and the name var. *Carlesii*, after its collector, is suggested.

Tilia Henryana Szysl. var. *Carlesii* Marquand var. nov.; a typo differt setis ad apice loborum in margine laminae 8–10 mm. longis (in typum tantum 3–5 mm. longis), lamina infra nervis tertiariis parum conspicuis vix super mesophyllum elevatis, infra laminam vix indumento vestita, interdum fere glabra est, inflorescentia atque altera partes typicae sunt.

CHINA. In silva Hui-ch'ü ssü, prope Yangtze flumen inter Nanking et Chinkiang in provincia Kiang-su, Dec., 1895, *W. R. Carles* 559. Prope Nanking, in provincia Kiangsu, June 6, 1915, *F. N. Meyer* 1451.

Mr. Carles states that the specimen was obtained from a Temple named Hui-ch'ü ssü, on the slope of a hill Huashan, on the south bank of the Yangtze about halfway between Nanking and Chinkiang.

This variety is highly interesting in that it comprises the extreme form of development of a character by which the type of the species is distinguished from all other Chinese species of this difficult genus. It is said to be a strikingly beautiful tree when growing, and was found in a wood which had escaped destruction, at a time when many in the district were cut down, through being ransomed by the priests of the temple.